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ANNUAL PROGRESS REPORT

1971

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ARID LAND ECOLOGY RESEARCH

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ARID LAND ECOLOGY RESEARCH[1]
1971 ANNUAL PROGRESS REPORT

by

H. G. Fisser, R. E. Ries[2]

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[1] Published with the approval of the Director, Wyoming Agricultural Experiment Station, as Scientific Report No. 428.

[2] Professor of Range Management and Graduate Research Aide, Range Management Section, University of Wyoming, Laramie, respectively.

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SECTION I

PRECIPITATION PATTERN STUDY

1971

Introduction

During 1960 over 70 gauges were installed at 6 to 12 mile intervals throughout the Big Horn and Wind River Basins. Since that time approximately 20 gauges in the Big Horn Basin have been discontinued and some 80 gauges have been installed at various exclosures and study sites throughout western Wyoming. These gauges are cans, 12" in height and approximately 2.75" in diameter. This diameter allows reading of precipitation by merely pouring the water into a 100 ml cylinder, and converting ml readings to inches of rainfall. One hundred ml is equal to 1" of precipitation. The gauges are read on the same four dates each year--April 15, July 1, September 1, and October 15. Personnel of the Worland, Lander, Rawlins, Casper and Rock Springs Districts of the Bureau of Land Management cooperate with the Univsity in reading the instruments. Some gauges are also read by personnel of the Soil Conservation Service and the Wyoming Game and Fish Commission.

The U. S. Weather Bureau and the U. S. Geological Survey precipitation data are used to provide additional information from other locations. This cooperative effort provides an effective network for future evaluation of precipitation patterns. A map of precipitation gauge locations was presented in the 1963 report.

1971 Results

Precipitation data for 1971 from the University gauges are presented in Table 1; those from the U.S. Weather Bureau stations are presented in Table II.

Precipitation values for the year 1971 were somewhat greater than the average annual precipitation amounts computed for most of the University rain gauges. Although winter values were a little low, the late spring and summer values were somewhat greater than average. The year was a fairly good year in terms of vegetation production, but the slightly greater than average precipitation values did not significantly affect production.

Table 1. Precipitation data for 1971 from University of Wyoming gauges for the periods October 15-April 15 (winter), April 15-July 1 (spring), July 1-Sept. 1 (summer) and September 1-October 15 (fall).

		Precipitation Periods and Data Collection Dates						
Rain Gauge No.	Rain Gauge Name	Winter Apr. 15 '71	Spring July 1 '71	Summer Sept. 1 '71	Fall Oct. 15 '71	Total '71	Long-Term Average	No. of years
	Park County							
147	Big Sage	2.20	4.51	.74	2.43	9.88	7.96	3
146	Big Sky	2.18	3.75	.62	3.15	9.70	8.99	3
100	Buffalo Basin	2.36	5.10	.95	1.87	10.28	10.92	5
145	Hilltop Springs	5.77	7.50	.72	4.78	18.77	14.29	3
	Big Horn County							
176	Basin Flats Exc.	1.63	1.03	.70	.86	4.22	6.68	5
123	Big Flat Exc.	1.33	2.33	.72	1.73	6.11	6.37	4
24	Halogeton Exc. #1	1.03	3.23	.88	1.40	6.54	5.49	12
167	Halogeton Exc. #2	estb.	2.68	.78	1.45	-	-	-
168	Halogeton Exc. #3	estb.	2.40	.76	1.44	-	-	-
12	Horse Creek	3.54	2.55	.89	2.65	8.63	11.58	12
113	Horse Haven Exc.	1.63	2.90	.72	.96	6.21	7.08	5
21	Kane Deer Exc.	4.24	2.48	.63	3.19	10.54	12.45	7
149	Kane G.R.I. Exc.	3.86	2.20	.81	3.23	10.10	13.88	4
116	Kane Seed Exc.	1.30	1.56	.62	1.66	5.14	7.07	4
148	Medicine Lodge G.R.I. exc.	4.49	4.50	.82	4.47	14.28	14.53	4
175	Potato Ridge	2.32	3.02	.30	1.33	6.97	8.22	4
23	Sheep Springs Exc.	4.25	4.00	.88	2.29	11.42	13.93	11
176	Sheldon Gulch	2.32	2.68	.30	1.26	6.56	8.11	4
112	Shell Study Area	Discontinued - see Potato Ridge RG 75						
	Washakie County							
1	Ant Hill Worland	1.44	2.75	.95	1.86	6.80	6.49	12
150	Big Trails G.R.I.	4.13	6.61	.27	4.29	15.30	13.74	4
41	Bud Kimball	2.64	4.30	.20	2.50	9.64	9.28	10
7	Buffalo Creek Exc.	2.90	4.67	.36	2.90	10.83	10.41	10
17	Burnt Wagon	1.20	2.37	1.60	1.54	6.71	6.14	10
179	Chalk	.98	2.12	2.35	3.83	9.28	6.53	11
8	Demer	2.42	4.32	.37	2.88	9.99	8.30	12
4	Dutch Nick Flat Exc.	1.34	2.77	1.89	1.66	7.66	6.94	11
114	East Worland Study Area	Discontinued - see Tolman Ridge RE 181						
15	15 Mile Study Area	.98	2.12	2.35	3.83	9.28	6.53	11
177	Hawk Exc.	1.20	2.44	1.64	1.24	6.52	6.12	10
166	Mills Burn	3.12	6.57	.26	3.93	13.88	13.88	1
36	Smilo Exc.	2.75	3.42	.10	1.29	7.56	8.21	11
181	Tolman Ridge Exc.	1.89	2.94	.65	1.16	6.64	6.22	5
39	Two Mile Hill Exc.	3.07	4.22	.49	2.73	10.51	10.21	11
13	West Pasture Exc.	E1.50	3.30	1.67	3.02	9.49	5.82	10
178	Willwood Exc.	.98	2.13	1.80	3.36	8.27	6.44	11
115	Worland Cattle Co. Exc.	2.53	3.67	.39	3.00	9.59	7.79	4
180	Sand Creek Exc.	1.89	2.82	.67	1.16	6.54	6.20	5
	Hot Springs County							
117	Big Bend Exc.	2.88	4.50	.11	2.80	10.29	9.89	4
76	Cochran Exc.	2.34	4.65	.51	4.58	12.08	10.28	11
77	Kirby Creek Exc.	2.17	4.93	.93	3.50	11.53	9.03	9
111	Lower Enos Cr. Exc.	1.41	7.06	1.20	2.63	12.30	10.44	4
22	L U Juniper Study	3.33	8.48	1.85	4.08	17.74	15.19	6
183	North Butte - Thermop		estb.	.51	2.47	-	-	-
182	Round Top Mountain		estb.	.56	2.73	-	-	-
75	Sand Gulch	1.98	4.62	.70	3.78	10.08	9.13	10

Table 1. Continued

Precipitation Periods and Data Collection Dates

Rain Gauge No.	Rain Gauge Name	Winter Apr. 15 '71	Spring July 1 '71	Summer Sept. 1 '71	Fall Oct. 15 '71	Total '71	Long-Term Average	No. of years
	Fremont County							
52	Alkali Flats	1.56	5.44	.50	2.02	9.52	8.63	11
2	Ant Plot Exc. (Lander)	2.51	6.80	.95	2.62	12.78	8.84	11
157	Bar X	2.20	4.21	1.16	1.31	8.88	6.87	3
89	Birdseye Ranch	1.89	2.58	.64	1.22	6.33	7.62	8
10	Boysen Resevoir Exc.	.83	3.42	.65	1.38	6.28	4.84	12
85	Bridger Creek Ranch	3.73	3.82	.35	2.24	10.14	10.58	9
49	Canyon Creek	2.16	4.52	1.70	1.50	9.88	8.50	10
59	Carter Divide Exc.	1.72	6.60	.40	2.33	11.05	8.25	11
88	Comet Mine	4.42	5.14	.80	2.35	12.71	10.07	9
60	Dishpan Butte #1 Exc.	1.71	2.65	.60	1.21	6.17	9.97	10
61	Dishpan Butte #2 Exc.	1.94	4.00	.79	1.92	8.65	9.41	10
86	Dry Creek	.89	2.92	.33	1.51	5.65	6.97	11
58	Empty Cartridge Exc.	2.37	GD	GD	GD		7.71	8
55	Fraser Seed Plot	2.40	4.66	.68	1.96	9.70	8.31	9
48	Fuller Seed Plot	1.54	5.96	.37	2.11	9.98	8.67	11
46	Gibbs Butte	.89	5.20	.24	1.30	7.83	7.01	11
6	Granite Mountain	1.95	4.47	.77	1.72	8.91	8.75	8
62	Hall Creek Divide Exc.	2.46	7.93	1.19	3.06	14.64	11.55	11
87	Hoodoo Creek	1.13	3.58	.16	2.02	6.89	5.89	11
64	Hudson	1.62	7.65	.69	2.28	12.24	8.91	11
68	Johnson	.92	2.16	.07	1.35	4.50	7.15	9
63	Little Popo Agie	1.98	7.62	.52	2.97	13.09	10.83	11
56	Logan #1 Exc.	2.20	7.40	.46	2.28	12.34	9.00	11
57	Logan #2 Exc.	1.85	3.90	1.22	2.14	9.11	8.64	11
16	Lower Gov't. Draw Exc.	2.50	7.40	.82	2.47	13.19	10.62	11
81	Mack Ranch	E2.75	2.54	.10	1.66	7.05	7.61	8
67	Madden	E1.75	3.90	.40	1.66	7.71	10.27	10
14	McGraw Flat	2.83	6.87	.97	2.38	13.05	9.75	11
47	Muskrat Creek	1.30	5.52	.20	2.90	9.92	7.10	10
50	Muskrat #5 Exc.	2.05	6.00	.34	1.85	10.24	8.59	11
51	Poison Creek	1.27	5.43	.28	1.91	8.89	7.72	9
80	Poison Draw	E1.50	2.12	.11	1.05	4.78	7.27	11
65	Sand Draw	2.07	7.20	..17	2.23	11.67	8.68	10
169	Shoshoni Ant #2 Exc.	estb.	5.77	.25	2.32	-	-	-
170	Shoshoni Ant #4 Exc.	estb.	5.58	.18	2.04	-	-	-
158	Shoshoni Ant #7 Exc.	1.33	E5.60	.25	2.40	9.58	9.58	1
172	Shoshoni Ant #8 Exc.	estb.	5.28	.23	2.26	-	-	-
171	Shoshoni Ant #9 Exc.	estb.	5.20	.15	2.30	-	-	-
173	Shoshoni Ant #11 Exc.	estb.	5.04	.10	2.00	-	-	-
11	Sweetwater	2.03	4.44	.90	.70	8.07	8.01	9
9	Upper Gov't. Draw	1.67	6.34	.39	2.42	10.92	8.41	11
	Natrona County							
143	Arminto Exc.	1.65	GD	.03	GD		9.25	4
109	Bolton Creek Exc.	GD	GD	GD	.95		8.89	3
141	Donlin Exc.	1.31	5.35	0.0	1.00	2.66	2.34	4
110	E K Exc.	1.65	GD	.03	GD		9.25	4
142	Merino Exc.	2.45	4.86	.03	.72	8.06	9.18	4
108	Mud Springs	3.49	5.06	.29	2.01	10.85	11.04	4
107	Owl Draw Exc.	2.91	5.41	.41	1.52	10.25	9.63	5
144	Poison Spider Exc.	2.54	4.50	.57	1.07	8.68	8.80	4
106	Stinking Creek Exc.	3.46	4.10	.56	1.83	9.85	9.34	5
	Carbon County							
27	Little Robber #5	3.25	4.98	1.02	1.49	10.74	10.16	10
127	Oppenheimer (RG #4)	3.42	4.26	1.70	1.48	10.86	9.58	4
128	Oppenheimer Exc. #1 (RG #5)	3.81	4.07	.57	1.57	10.01	10.17	4
129	Oppenheimer-C (RG #6)	3.27	3.67	.90	1.54	9.38	8.72	4
124	Poison Butte Exc. #1 (RG #1)	4.15	4.27	.46	1.63	10.51	11.00	4

Table 1. Continued

Precipitation Periods and Data Collection Dates

Rain Gauge Gauge No.	Rain Gauge Name	Winter Apr. 15 '71	Spring July 1 '71	Summer Sept. 1 '71	Fall Oct. 15 '71	Total '71	Long-Term Average	No. of years
	Carbon County, cont.							
125	Poison Butte Exc. #2 (RG #2)	4.81	4.30	.88	1.67	11.66	11.92	4
126	Poison Butte (RG #3)	3.80	3.56	1.49	1.72	10.97	9.91	4
130	Powder Rim Past. C. Exc. #1 (RG #7)	3.12	4.28	.60	1.55	9.55	8.72	4
26	Red Wash #1	2.72	4.20	1.64	1.21	9.77	8.80	10
25	Red Wash #3	2.05		7.48	1.19	10.72	9.26	10
	Sweetwater County							
20	Black Mountain	2.21	3.90	.91	1.23	8.25	7.68	10
30	Boars Tusk	3.74	3.33	..72	1.32	9.11	7.57	11
18	Cedar Mountain Exc.	2.21	4.46	.33	1.34	8.34	8.75	10
102	Chandler Simpson Well	1.13	3.16	.55	1.02	5.86	5.21	4
103	Daley Hay Corral	1.44	3.27	.41	1.13	6.25	6.42	5
2	Farson Exc.	3.01	2.51	.97	.82	7.31	6.39	10
95	Farson Guzzler #1	3.81	2.93	1.37	1.40	9.51	7.86	7
96	Farson Guzzler #2	4.07	4.74	.59	1.40	10.80	8.84	7
97	Farson Guzzler #3	3.19	2.57	1.10	1.14	8.00	7.11	7
98	Farson Guzzler #4	4.22	2.67	.91	1.48	9.28	7.59	7
99	Farson Guzzler #5	3.19	2.79	.90	1.04	7.92	7.00	7
122	Firehole Guzzler #10	3.79	5.13	.54	1.48	10.94	11.40	4
151	Firehole Guzzler #11	3.85	4.68	.29	1.50	10.32	10.80	3
152	Firehole Guzzler #12	3.79	5.03	.45	1.49	10.76	11.07	3
153	Firehole Guzzler #13	3.79	4.50	.25	1.75	10.29	11.50	3
104	J. O. Head Quarters	2.68	4.76	1.50	.92	9.86	7.50	6
105	Len Hay Corral	1.93	3.74	1.85	.74	8.26	6.89	6
162	Little Am. Guzzler #20	2.58	4.40	.54	.95	8.47	8.64	2
163	Little Am. Guzzler #21	1.98	4.10	.66	.80	7.54	7.59	2
164	Little Am. Guzzler #22	2.29	4.15	.42	.80	7.66	7.53	2
165	Little Am. Guzzler #23	2.12	4.41	.41	.78	7.72	7.17	2
159	Little Bitter Cr. Guzzler #17	3.00	4.87	.45	1.34	9.66	10.57	2
160	Little Bitter Cr. Guzzler #18	4.56	5.54	.25	1.80	12.15	12.58	2
131	Powder Rim Past. D Exc. #1 (RG #8)	3.24	4.29	1.13	1.23	9.89	8.49	4
132	Powder Rim -C (RG #9)	3.04	4.14	1.07	1.43	9.68	9.14	4
133	Powder Rim D-C-B (RG #10)	2.78	4.17	.53	1.24	8.72	8.18	4
134	Powder Rim D-B (RG #11)	2.93	4.11	.48	1.22	8.74	7.94	4
135	Powder Rim B-State line (RG #12)	3.47	4.78	.64	1.16	10.05	9.90	4
136	Powder Rim Past. B #1 Exc. (RG #13)	3.51	5.17	47	1.26	10.41	9.31	4
137	Powder Rim B Exc. #2 (RG #14)	5.20	5.36	.74	1.14	12.44	11.90	4
138	Powder Rim A-B (RG #15)	3.41	4.39	.39	1.17	9.36	9.90	4
139	Powder Rim A Exc. #1 (RG #16)	3.37	4.86	.51	1.36	10.10	9.83	4
140	Powder Rim A (RG #17)	2.98	4.48	.49	1.26	9.21	8.24	4
118	Power-line Guzzler #6	4.69	4.15	1.19	1.33	11.36	9.60	4
119	Power-line Guzzler #7	4.01	4.54	1.22	1.28	11.05	9.48	4
19	Radio Tower	1.83	4.54	1.05	1.45	8.87	7.25	11
28	Red Wash #2	1.98	4.95	1.05	1.41	9.39	7.74	10
161	Sage Creek Guzzler #19	5.43	5.22	.65	1.87	13.17	13.68	2
154	Salt Wells Guzzler #14	4.94	5.96	.87	1.80	13.57	11.18	3
155	Salt Wells Guzzler #15	3.06	4.10	.36	1.48	9.00	9.19	3
156	Salt Wells Guzzler #16	2.99	4.24	.43	1.54	9.20	9.33	3
120	Steamboat Guzzler #8	5.28	4.74	.72	1.65	12.39	11.44	4
121	Steamboat Guzzler #9	5.42	4.85	.63	1.56	12.46	11.61	4
101	Ten Mile Ridge	1.05	E3.20	.43	.70	5.38	5.69	6

Table 1. Continued

Rain Gauge No.	Rain Gauge Name	Precipitation Periods and Data Collection Dates Winter Apr. 15 '71	Spring July 1 '71	Summer Sept. 1 '71	Fall Oct. 15 '71	Total '71	Long-Term Average	No. of years
	Uinta County							
31	Cumberland #1 Exc.	3.55	3.42	.84	.38	8.19	8.45	7
34	Cumberland #4 Exc.	4.50	3.56	.77	.59	9.42	8.53	7
	Lincoln County							
32	Cumberland #2 Exc.	E4.50	E4.01	1.65	.15	10.31	9.29	8
33	Cumberland #3 Exc.	E6.27	E4.27	.26	1.20	12.00	11.08	8
35	Elk Mountain Pit	7.24	1.31	1.35	.10	10.00	8.97	7

E - Estimated
GD - Gauge Destroyed

Table 2. Preciptitation data from selected U.S. Weather Bureau Stations for the period October 15, 1970 to October 15, 1971.[1]

Station Name	Winter Oct. 16 to Apr. 15	Spring Apr. 16 to July 1	Summer July 1 to Sept. 1	Fall Sept. 1 to Oct. 15	1971 Totals[2]	Long Term Average[3]	Years of Record
Big Horn Basin							
Anchor Dam	2.70	7.05	3.11	4.04	16.90	10.87E	10
Basin	1.43	2.53	.76	1.31	6.03	6.21	64
Black Mountain	2.39	5.16	.52	1.98	10.05	10.09E	9
Cody 12 SE	2.25	4.80	1.00	2.16	10.21	9.08E	9
Deaver	1.28	1.44	.45	1.42	4.59	5.21	53
Emblem	1.73	2.94	1.16	2.37	8.20	8.83E	25
Grass Creek	1.68	2.18	1.00	1.25	6.11	6.04E	19
Greybull						6.39E	20
Heart Mountain	1.69	3.95	.79	1.87	8.30	7.36E	23
Lovell	1.81	2.22	1.23	1.90	7.16	6.92	59
Powell	1.30	2.21	.90	2.26	6.67	5.67	62
Rairden 2 WSW	1.37	3.03	.87	1.62	6.89	6.36E	20
Shell	3.42	3.57	.66	2.59	10.24	9.12E	13
Ten Sleep 4NE	4.62	4.21	.81	3.88	13.52	13.67E	8
Ten Sleep 16 SSE	3.67	4.86	.36	1.92	10.81	12.88E	10
Thermopolis 2	2.49	6.31	.79	3.13	12.72	11.01	7
Thermopolis 25 WNW	1.66	5.69	2.66	3.37	13.38	9.62	14
Worland	1.60	3.61	1.01	1.83	8.05	7.76	58
Worland FAA AP	1.49	2.81	--	1.53	--	5.47E	11
Wind River Basin							
Boysen Dam	1.39	5.19	.58	2.18	9.34	9.99	25
Diversion Dam	.82	8.17	--	3.10	12.09	9.45	51
Fort Washakie 25	3.12	10.26	.86	3.48	17.72	11.90	63
Gas Hills 4E	1.98	4.61	.96	1.80	9.35	7.28E	9
Lander WSD	3.18	9.99	.54	3.23	16.94	13.58	80
Lost Cabin	1.17	1.45	.03	2.16	4.81	1.61E	10
Pavillion	.44	8.15	.72	1.87	11.18	8.67	47
Riverton	.85	7.75	.58	1.86	11.04	8.79E	52
Sand Draw	1.83	6.45	.99	1.63	10.90	10.24E	24
Shoshoni	.69	5.47	.30	2.16	8.62	7.18E	31
South West Wyoming							
Farson	2.36	4.11	.34	1.36	8.17	7.97E	48
Green River	1.52	4.71	1.27	1.52	9.02	8.70	65
Kemmerer 4SW	5.02	2.57	.61	.91	9.11	7.76E	38
Rock Springs	2.83	4.00	.86	1.47	9.16	8.61	31
Rock Springs FAA AP	2.68	6.06	.62	1.69	11.05	10.98	39
Wamsutter 1N	.89	--	--	--	--	6.60E	31
Muddy Gap	1.87	5.63	.58	1.98	10.06	8.24E	22
Rawlins FAA AP	2.65	2.74	.76	1.09	7.24	10.62	32

[1] Weather Bureau, 1971. Climatological Data-Wyoming Annual Summary of Commerce Vols. 79 & 80.

[2] Computed for the period October 15, 1970 to October 15, 1971.

[3] Weather Bureau, 1971. Climatological Data-Wyoming Annual Summary. U.S. Dept. of Commerce. Vol. 80, No. 13 and John Alyea, U.S. Weather Bureau, Cheyenne.

EXCLOSURE STUDIES (PRODUCTION, COVER, AND PRECIPITATION PHASE)

1971

Studies of vegetation production on several exclosures and relic areas of the Big Horn and Wind River Basins were initiated during the 1962 field season. These studies have been continued annually since this time. The objectives of the program are to determine:

1. the relationship of annual herbage production to area cover percentage;
2. the relationship of annual herbage production changes to variations in time and amount of available moisture;
3. the relationship of plant height of major forage species to annual herbage production and to time and amount of available moisture;
4. influence of several range improvement practices on herbage production and area cover;
5. the relationship of percentage frequency to area cover and herbage production.

Methods and Procedures

Area cover and herbage production studies on sagebrush-grass sites were conducted on transects of 20 quadrats, 1' x 1', spaced systematically along a randomly located 100' steel tape.

On sites dominated by saltbush, a variation of the sampling technique, described in the 1968 results, was used to measure herbage production. Twenty 1' x 10' plots were located systematically along a randomly located 100' steel tape. Each 1' x 10' plot was subsampled for vegetative cover using 10 1' x 1' plots.

Area cover of all herbaceous semi-woody and woody species was estimated within each square foot plot. Data of shrub crown cover and basal cover of

plains pricklypear, Hood's phlox, and Hooker sandwort were not combined when comparing area cover to herbaceous production since this group of plants were not clipped.

Forage production was determined by clipping herbaceous species at ground or crown level. Exclosures were clipped on or near the same date as the previous years. Clippings were oven-dried at 70°C for 12 hours prior to weighing.

On areas where utilization had occurred prior to clipping, utilization estimates by species were made. These estimates were made at the same time and on the same plots where clipping was done. The utilization values were averaged by species for the 20 plots and later used to adjust production for vegetation lost by utilization.

Also collected in 1971 was the production of the shruby species. Their production was added to the clipped production for an index to total production at the various study sites. Shrub production was obtained by a modified double-sampling technique carried out during early September. The technique involved a weight-unit estimation procedure which is rapid and relatively accurate. Estimates were made on transects consisting of 20 quadrats, 4' x 5', spaced from 6-12 steps apart. The number of weight-units in each plot was estimated individually by two men and then checked for accuracy. Weight-units were determined prior to the estimation procedure.

Summarization of clipped data was again completed with a specific computer program as outlined in the Arid Land Ecology Annual Progress Report, 1970.

Precipitation data were recorded from simple aluminum rain guages installed at each exclosure. Precipitation data were recorded four times a year - April 15, July 1, September 1, and October 15.

Metal stakes were driven into the ground for permanent photo location points in the area where production studies are being conducted in each exclosure.

Names of plants which occurred in the production study areas are shown in Table I. Included are the four letter code names by which the plants are identified in the tabular material; genus, species, and common names, and life form and characteristic longevity of the plants.

Results 1971

The information presented in this 1971 annual report is in the same format as past Arid Land Ecology Annual Reports. Basal cover, frequency, production and precipitation data are presented on summary sheets, one summary for each study area treatment. Table II gives an alphabetical listing of study areas, the county where each is located, the treatments studied at each area, and also serves as a table of contents for reference to specific pages concerning each study area.

Production on each summary sheet is broken down into clipped production (herbaceous species), shrub production, total production and an adjusted total production for locations where utilizations of vegetation had occurred prior to clipping. Table III gives the exclosures and utilization percents for sites where utilization had occurred. Study areas not mentioned showed no or a non-significant amount of utilization; therefore, total production values did not require adjustment.

Over the past winter exclosures initiated in 1962 were summarized and an average precipitation and production for each study location and treatment was calculated for years 1962-1970 (9 years). The average precipitation and production and 1971 precipitation and production are compared in Table IV. Except for three study areas, Horse Creek, Sweetwater, and Buffalo Creek,

1971 was more moist than the average year. McGrow Flat, North Butte, and West Pasture had a quite moist year, and increased production over the average was also observed. Other sites have varying precipitation and production relations possible complicated by the season of 1971, when the precipitation was received.

TABLE I. Continued

Code	Genus--Species	Common Name	Life Form	Longevity
LEPU	Leptodactylon pungens	Granite gilia	Forb	Perennial
LERE	Lewisia rediviva	Bitterroot	Forb	Perennial
LIRU	Lithosperum ruderale	Wayside gromwell	Forb	Annual
MAGL	Machaeranthera glabriuscula	Woody aster	Half-shrub	Perennial
MATA	Machaeranthera tanacetifolia	Aster	Forb	Annual
MEN	Menodora spp.	Menodora	Forb	Perennial
MER	Mertensia spp.	Bluebells	Forb	Perennial
MIGR	Microsteris gracilis	Pink Microsteris	Forb	Annual
MUDI	Musineon divaricatum	Falsecarrot	Forb	Perennial
MUSQ	Munroa squarrosa	False buffalograss	Grass	Annual
OECA	Oenothera caespitosa	Tufted evening primrose	Forb	Perennial
OPPO	Opuntia polyacantha	Plains pricklypear	Forb	Perennial
ORHY	Oryzopsis hymenoides	Indian ricegrass	Grass	Perennial
PEAL	Penstemon albertinus	Alberta penstemon	Forb	Perennial
PEN	Penstemon spp.	Penstemon	Forb	Perennial
PHAU	Physaria australis	Twinpod	Forb	Perennial
PHHO	Phlox hoodii	Hood's phlox	Forb	Perennial
PHLO	Phlox longifolia	Long-leaf phlox	Forb	Perennial
PHMU	Phlox multiflora	Flowery phlox	Forb	Perennial
PLPA	Plantago patagonica	Wooly indianwheat	Forb	Annual
PLSP	Plantago spinescens	Spiny indianwheat	Forb	Annual
POAM	Poa ampla	Big bluegrass	Grass	Perennial
POAV	Polygonum aviculare	Prostrate knotweed	Forb	Annual
POFE	Poa fendleriana	Muttongrass	Grass	Perennial
POL	Polygonum spp.	Knotweed, smartweed	Forb	Perennial
POSE	Poa secunda	Sandberg bluegrass	Grass	Perennial
PSTE	Psoralea tenuiflora	Slimflower scurfpea	Forb	Perennial
SAKA	Salsola kali	Russian thistle	Forb	Annual
SAVE	Sarcobatus vermiculatus	Greasewood	Shrub	Perennial
SED	Sedum spp.	Stonecrop	Forb	Perennial
SIAL	Sisymbrium altissimum	Tumblemustard	Forb	Annual
SIHY	Sitanion hystrix	Squirreltail bottlebrush	Grass	Perennial
SPCO	Sphaeralcea coccinea	Scarlet globemallow	Forb	Perennial
SPCR	Sporobolus cryptandrus	Sand dropseed	Grass	Perennial
STCO	Stipa comata	Needleandthread	Grass	Perennial
STWI	Stipa Williamsi	Williams needlegrass	Grass	Perennial
SYOC	Symphoricarpos occidentalis	Western snowberry	Shrub	Perennial
TECA	Tetradymia canescens	Gray horsebrush	Shrub	Perennial
TESP	Tetradymia spinosa	Spiny horsebrush	Shrub	Perennial
TRI	Trifolium spp.	Clover	Forb	
UMB	Umbelliferae fam.	Carrot fam.		
VIAM	Vicia americana	American vetch	Forb	Perennial
VIO	Violaceae	Violet family	Forb	Perennial
ZYG	Zygadenus spp.	Death camas	Forb	Perennial

TABLE II. An alphabetical listing of study areas, the county where each occurs, the treatments studied at each area, and table of contents.

County Name Code	Exclosure Name	County	Treatment	Page
2017	Big Trails G.R.I. Exc.	Washakie	Inside Spray	
			Outside Native	
1002	Boysen Reservoir Exc.	Fremont	Inside Native	
			Outside Native	
2007	Bud Kimball Exc.	Washakie	Inside Native	
			Outside Native	
			Inside Spray	
			Outside Spray	
2002	Buffalo Creek Exc.	Washakie	Inside Native	
			Outside Native	
2003	Burnt Wagon Exc.	Washakie	Inside Native	
			Outside Native	
1501	Cochran Exc.	Hot Springs	Inside Native	
			Inside Pitted	
			Inside Cultivated	
			Outside Native	
			Outside Spray	
1901	Cumberland Exc. #1	Uinta	Inside Native	
			Outside Native	
			Inside Spray	
			Outside Spray	
1201	Cumberland Exc. #2	Lincoln	Inside Native	
			Outside Native	
			Inside Spray	
			Outside Spray	
1202	Cumberland Exc. #3	Lincoln	Inside Native	
			Outside Native	
			Inside Spray	
			Outside Spray	
1902	Cumberland Exc. #4	Uinta	Inside Native	
			Outside Native	
2004	Demer Exc.	Washakie	Inside Native	
			Outside Native	
2005	Dutch Nick Exc.	Washakie	Inside Native	
			Outside Native	
0404	Farson Exc.	Sweetwater	Inside Native	
			Outside Native	
1007	Granite Mountain Exc.	Fremont	Inside Native	
			Outside Native	
			Inside Spray	
			Outside Spray	
0901	Halogeton Pasture Exc. #1	Big Horn	Inside Native	
0902	Halogeton Pasture Exc. #2	Big Horn	Inside Native	
0903	Halogeton Pasture Exc. #3	Big Horn	Inside Native	
0904	Halogeton Pasture #1	Big Horn	Outside Native	
0905	Halogeton Pasture #2	Big Horn	Outside Native	

TABLE I. LIST OF PLANT NAMES WHICH OCCURRED IN PRODUCTION STUDY AREAS

Code	Genus--Species	Common Name	Life Form	Longevity
AGGL	Agoseris glauca	Pale agoseris	Forb	Perennial
AGGR	Agropyron griffithsii	Griffith's wheatgrass	Grass	Perennial
AGSM	Agropyron smithii	Western wheatgrass	Grass	Perennial
AGSP	Agropyron spicatum	Bluebunch wheatgrass	Grass	Perennial
ALTE	Allium textile	Textile onion	Forb	Perennial
ANNE	Antennaria neglecta	Field pussytoes	Forb	Perennial
ANRO	Antennaria rosea	Rose pussytoes	Forb	Perennial
ARA	Arabis spp.	Rockcress	Forb	Perennial
ARAR	Artemisia arbuscula	Low sagebrush	Shrub	Perennial
ARFR	Artemisia frigida	Fringed sagewort	Half-shrub	Perennial
ARHO	Arenaria hookeri	Hooker sandwort	Forb	Perennial
ARHO2	Arabis holboellii	Holboell rockcress	Forb	Perennial
ARLO	Aristida longiseta	Red three-awn	Grass	Perennial
ARNO	Artemisia nova	Black sagebrush	Shrub	Perennial
ARSP	Artemisia spinescens	Bud sagebrush	Half-shrub	Perennial
ARTR	Artemisia tridentata	Big sagebrush	Shrub	Perennial
ASMI	Astragalus missouriensis	Missouri milkvetch	Forb	Perennial
ASPU	Astragalus purshii	Pursh loco	Forb	Perennial
AST	Astragalus spp.	Milkvetch	Forb	Perennial
ATAG	Atriplex argentea	Tumbling saltbush	Forb	Annual
ATAR	Atriplex argentea	Silverscale saltbush	Forb	Annual
ATCO	Atriplex confertifolia	Shadscale saltbush	Shrub	Perennial
ATNU	Atriplex nuttallii	Nuttall saltbush	Half-shrub	Perennial
BOGR	Bouteloua gracilis	Blue grama	Grass	Perennial
BRCO	Bromus commutatus	Hairy chess	Grass	Annual
BRMO	Bromus mollis	Soft chess	Grass	Annual
BRTE	Bromus tectorum	Cheatgrass	Grass	Annual
CAEL	Carex eleocharis	Needleleaf sedge	Sedge	Perennial
CAFI	Carex filifolia	Threadleaf sedge	Sedge	Perennial
CAMI	Camelina microcarpa	Littlepod falseflax	Forb	Annual
CAST	Castilleja spp.	Paintbrush	Forb	Perennial
CELE	Cercocarpus ledifolius	Curlleaf Mn't Mahogeny	Shrub	
CHE	Chenopodiaceae fam.	Goosefoot fam.		
CHEN	Chenopodium sp.	Goose foot	Forb	Annual
CHNA	Chrysothamnus nauseosus	Rubber rabbitbrush	Shrub	Perennial
CHVI	Chrysothamnus viscidiflorus	Green rabbitbrush	Shrub	Perennial
CORA	Cordylanthus ramosus	Branched birdbeak	Forb	Annual
CRBR	Cryptantha bradburiana	Miners candle	Forb	Perennial
CRE	Crepis spp.	Hawksbeard	Forb	
DEPI	Descurainia pinnata	Pinnate tansymustard	Forb	Annual
DRA	Draba spp.		Forb	Perennial
ERCO	Erigeron compositus	Fernleaf fleabane	Forb	Perennial
ERMI	Eriogonum microthecum	Slenderbrush	Forb	Perennial
EROV	Eriogonum ovalifolium	Cushion eriogonum	Forb	Perennial
ERPU	Erigeron pumilus	Fleabane	Forb	Perennial
ERUM	Erigonum Umbellatum	Sulfur wild buckwheat	Forb	Perennial
EULA	Eurotia lanata	Winterfat	Half-shrub	Perennial
EUP	Euphorbia sp.	Spurge	Forb	Annual
EUSE	Euphorbia serphyllifolia	Thyme-leaved spurge	Forb	Annual
FEID	Festuca idahoensis	Idaho fescue	Grass	Perennial
FEOC	Festuca octoflora	Sixweek fescue	Grass	Annual
GILE	Gilia leptomeria	Gilia	Forb	Annual
GIPU	Gilia pumila	Gilia	Forb	Annual
GUSA	Gutierrezia sarothrae	Broom snakeweed	Half-shrub	Perennial
GYPA	Gymnostris Parvula	Leafless false phlox	Forb	Annual
HAGL	Halogeton glomeratus	Halogeton	Forb	Annual
HEAN	Helianthus annuus	Annual sunflower	Forb	Annual
HYAC	Hymenoxys acaulis	Stemless hymenoxys	Forb	Perennial
JUOS	Juniperus osteosperma	Utah juniper	Tree	Perennial
KOCR	Koeleria cristata	June grass	Grass	Perennial
LAC	Lactuca spp.	Lettuce	Forb	Annual
LARE	Lappula redowskii	Stickseed	Forb	Annual
LEDE	Lepidium densiflorum	Prairie pepperweed	Forb	Annual

Table II, Continued

County Name Code	Exclosure Name	County	Treatment	Page
0907	Halogeton Pasture #4A	Big Horn	Outside Native	
0908	Halogeton Pasture #4B	Big Horn	Outside Native	
0909	Halogeton Pasture #5	Big Horn	Outside Native	
0910	Halogeton Pasture #6	Big Horn	Outside Native	
0911	Halogeton Pasture #7A	Big Horn	Outside Native	
0912	Halogeton Pasture #7B	Big Horn	Outside Native	
0913	Horse Creek Exc.	Big Horn	Inside Agsp.	
			Outside Agsp.	
			Inside Agsm.	
			Outside Agsm.	
0914	Kane Deer Exc.	Big Horn	Inside Native	
			Outside Native	
			Inside Spray	
			Outside Spray	
0921	Kane G.R.I. Exc.	Big Horn	Inside Spray	
			Outside Native	
1502	Kirby Creek Exc.	Hot Springs	Inside Native	
			Outside Native	
1001	Lander Ant Exc.	Fremont	Inside Native	
			Outside Native	
1003	Lower Gov't. Draw Exc.	Fremont	Inside Native	
			Outside Native	
			Inside Spray	
			Outside Spray	
1004	McGraw Flat Exc.	Fremont	Inside Native	
			Outside Native	
0920	Medicine Lodge G.R.I. Exc.	Big Horn	Inside Spray	
			Outside Native	
1503	North Butte Relic Area	Hot Springs	Native	
1504	Round Top Relic Area	Hot Springs	Native	
1505	Sand Gulch Exc.	Hot Springs	Inside Native	
			Outside Native	
1009	Shoshone Ant Exc. #2, North	Fremont	Inside Native	
	South		Inside Native	
			Outside Native	
1011	Shoshone Ant Exc. #4, North	Fremont	Inside Native	
	South		Inside Native	
			Outside Native	
1013	Shoshone Ant Exc. #7, North	Fremont	Inside Native	
	South		Inside Native	
			Outside Native	
1014	Shoshone Ant Exc. #8, North	Fremont	Inside Native	
	South		Inside Native	
			Outside Native	
1015	Shoshone Ant Exc. #9, North	Fremont	Inside Native	
	South		Inside Native	
			Outside Native	

Table II, Continued

County Name Code	Exclosure Name	County	Treatment	Page
1017	Shoshone Ant Exc. #11, North	Fremont	Inside Native	
	South		Inside Native	
			Outside Native	
2009	Smilo Exc.	Washakie	Inside Native	
			Outside Native	
			Inside Spray	
			Outside Spray	
1005	Sweetwater Exc.	Fremont	Inside Arno.	
			Outside Arno.	
			Inside Artr.	
			Outside Artr.	
2010	Two Mile Hill Exc.	Washakie	Inside Native	
			Outside Native	
1006	Upper Gov't. Draw Exc.	Fremont	Inside Native	
			Outside Native	
			Inside Spray	
			Outside Spray	
2006	West Pasture Exc.	Washakie	Inside Native	
			Outside Native	

TABLE III. Adjustments in production for utilization occurring prior to clipping.*

Exclosure	Treatment	Species	% Utilization	Adjusted Production (#/A.)
Cumberland # 2	Out Native	POSE	4	41.15
		POFE	9	28.99
		STWI	23	4.43
	Out Spray	AGSM	29	167.92
		MEN	12	20.96
		POSE	20	28.46
		STCO	80	2.59
		STWI	15	8.40
Cumberland #3	Out Spray	AGSM	1	201.94
		AGSP	1	224.25
		ORHY	20	2.94
		POSE	5	34.08
		STCO	5	8.12
		STWI	14	22.88
Horse Creek	Out AGSP	AGSP	32	112.69
Horse Creek	Out AGSM	AGSM	36	80.32
		AGSP	50	30.54
Kane Deer	In Spray	AGGR	6	24.58
	Out Spray	AGGR	27	7.62
Kane G.R.I.	In Spray	AGSP	47	62.68
		STCO	10	5.81
Lower Gov't. Draw	Out Native	AGSM	17	61.34
		POSE	8	41.74
		STCO	42	19.08
Lower Gov't. Draw	Out Spray	AGSM	36	165.86
		AST	50	1.72
		BRTE	1	40.40
		POSE	21	79.78
		STCO	83	28.29
McGraw Flat	Out Native	AGSM	.3	102.64
		POSE	1	58.87
Round Top Relic	Native	CAFI	3	59.54
Shoshone Ant #2	Out Native	AGSM	5	27.88
Shoshone Ant #7	Out Native	STCO	15	5.24
Shoshone Ant #8	In Native So.	AGSM	1	110.62
		STCO	9	46.47
	Out Native	STCO	8	25.10
Upper Gov't. Draw	Out Native	AGSM	1	120.18
		POSE	3	54.90
	Out Spray	AGSM	12	118.91
		KOCR	21	17.96
		POSE	5	96.75
		STCO	18	32.18
West Pasture	Out Native	BOGR	8	6.14
		ORHY	9	21.66
		POSE	3	27.15
		SIHY	2	15.29
		SPCR	1	31.35

*Study areas not mentioned showed no sign of utilization.

TABLE IV. Comparison of average (years 1962-1970) precipitation and clipped production with 1971 precipitation and herb production at exclosures begun in 1962.

	Precipitation (in.)		Clipped Production (#/A.)							
			In Native		Out Native		In Spray		Out Spray	
Study Area	Avg.*	'71	Avg.	'71	Avg.	'71	Avg.	'71	Avg.	'71
Bud Kimball Exc.[1]	9.46	9.64	231	230	278	238	527	545	451	542
Lower Govt. Draw Exc.[1]	10.19	13.19	328	337	273	217	662	632	181	316
Smilo Exc.[1]	8.19	8.21	148	46	88	66	316	587	365	663
Upper Govt. Draw Exc.[1]	8.62	10.92	221	299	233	195	388	812	271	272
Cochran Exc.[1]	9.89	12.08	248	170	227	247	-	-	-	-
Demer Exc.[1]	7.79	9.99	166	93	87	111	-	-	-	-
Farson Exc.[1]	6.43	7.31	111	112	83	80	-	-	-	-
Horse Creek AGSP Exc.[1]	11.98	8.63	447	453	192	159	-	-	-	-
Horse Creek AGSM Exc.[1]	11.98	8.63	493	214	184	121	-	-	-	-
Lander Ant. Exc.[1]	8.95	12.78	254	127	227	268	-	-	-	-
McGraw Flats Exc.[1]	9.64	13.05	227	333	182	264	-	-	-	-
North Butte (Relic)[1]	11.48	12.72	556	828	-	-	-	-	-	-
Sweetwater[1]	9.04	8.07	265	221	198	183	-	-	-	-
Burnt Wagon Exc.[2]	6.25	6.71	271	172	263	103	-	-	-	-
Sand Gulch Exc.[2]	9.05	11.08	667	473	593	598	-	-	-	-
Two Mile Hill[2]	10.17	10.51	522	299	463	509	-	-	-	-
West Pasture Exc.[2]	6.08	9.49	419	478	200	464	-	-	-	-
Boysen Exc.[3]	5.01	6.28	198	298	174	289	-	-	-	-
Dutch Nick Exc.[3]	6.75	7.66	332	154	285	171	-	-	-	-
Buffalo Creek Exc.[4]	11.04	10.83	494	458	378	280	-	-	-	-
Kirby Creek Exc.[5]	9.36	11.53	541	445	489	347	-	-	-	-

*AVG. - average for years 1962-1970
1 - Sagebrush-grass types
2 - Saltsage types
3 - Blue grama type
4 - Wheatgrass type
5 - Greasewood type

```
        2017   BIG    TRAILS G.R.I. AUGUST 16/71  INSIDE SPRAY

                           NUMBER PLOTS = 20
                             PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.    TOTAL  AVE.   WGT./  LBS**
CODE   NAME    TRANS  PER-   COMPO-   PLOT    WGT.   WGT.   UNIT   PER
               BASAL  CENT   SITION   FREQ.   GMS/20 /PLOT  BASAL  AC.
               AREA   BASAL           BASE    SQ.FT. OCCUR- AREA
               PER-   AREA            20             RENCES
               CENT

   PER GRASS     2.70  0.13              4      0.50   0.12  0.19   2.40
  3    POSE      2.70 .135      2.68     4      0.50   0.12  0.19  2.4008
   PER FORBS     1.10  0.05              2      1.65   0.82  1.50   7.92
  2    PSTE      1.10 5.50E-02 1.09      2
   ANN GRASS    95.90  4.79             19     75.59   3.98  0.79 362.96
  5    BRTE     95.90 4.79      95.2    19
   ANN FORBS     1.00  0.05              9      0.34   0.04  0.34   1.63
  4    LARE      0.10 T         9.93E-02 1
  4    MIGR      0.90 4.50E-02 .894      9
     TOTAL            5.03     100.00          78.080                374.92

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
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Shrub data not taken.

```
PRECIPITATION DATA
 RAIN GUAGE NO. 146    BIG    TRAILS G.R.I. AUGUST 16071
OCT. 15 TO APR. 15  =  4.13
APR. 15 TO JULY 1   =  6.61
JULY 1 TO SEPT. 1   =   .27
SEPT. 1 TO OCT. 15  =  4.29
SEASON TOTAL        = 15.30
LONG TERM AVERAGE   = 13.74
```

**No utilization

```
         2017  BIG    TRAILS G.R.I. AUGUST 16/71  OUT    NATIVE

                        NUMBER PLOTS = 20
                          PLOT SIZE 1X1
PLANT  PLANT  TOTAL  AVE.   PERCENT  ABS.   TOTAL  AVE.   WGT./  LBS**
CODE   NAME   TRANS  PER-   COMPO-   PLOT   WGT.   WGT.   UNIT   PER
              BASAL  CENT   SITION   FREQ.  GMS/20 /PLOT  BASAL  AC.
              AREA   BASAL           BASE   SQ.FT. OCCUR- AREA
              PER-   AREA            20            RENCES
              CENT

 6   *JUOS   495.00 24.8                 7
  PER GRASS    0.20  0.01                2     0.32   0.16  1.60    1.54
 3    PUSE     0.20 1.00E-02 .384        2     0.32   0.16  1.60  1.5365
  ANN GRASS   51.20  2.56               20    34,56   1.73  0.67  165.95
 5    BRTE    51.20 2.56        98.3    20
  ANN FORBS    0.70  0.03                6     0.90   0.15  1.29    4.32
 4    MIGR     0.40 2.00E-02 .768        4
 4    PLPA     0.20 1.00E-02 .384        2
 4    POAV     0.10 T          .192      1
    TOTAL          27.35      100.00          35.780                171.80

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
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Shrub data not taken.

```
PRECIPITATION DATA
 RAIN GUAGE NO.146    BIG    TRAILS G.R.I. AUGUST 16/71
OCT. 15 TO APR. 15 = 4.13
APR. 15 TO JULY 1  = 6.61
JULY 1 TO SEPT. 1  =  .27
SEPT. 1 TO OCT. 15 = 4.29
SEASON TOTAL       =15.30
LONG TERM AVERAGE  =13.74
```

**No utilization

```
          1002    BOYSEN RESERV EXCL    AUGUST 3/71    INSIDE NATIVE

                             NUMBER PLOTS = 20
                               PLOT SIZE 1X1
PLANT  PLANT    TOTAL  AVE.   PERCENT  ABS.   TOTAL   AVE.   WGT./  LBS**
CODE   NAME     TRANS  PER-   COMPO-   PLOT   WGT.    WGT.   UNIT   PER
                BASAL  CENT   SITION   FREQ.  GMS/20 /PLOT   BASAL  AC.
                AREA   BASAL           BASE   SQ.FT. OCCUR-  AREA
                PER-   AREA            20            RENCES
                CENT

  6    *OPPO      8.00 .400               3
   PER GRASS    264.50 13.22             19    48.02   2.53   0.18 230.58
 3     BOGR     264.50 13.2       99.0   19    48.02   2.53   0.18  230.58
   PER FORBS      2.30  0.11             13     6.45   0.50   2.80   30.97
 2     AST        0.40 2.00E-02 .150      4
 2     SPCO       1.90 9.50E-02 .711     11
   ANN FORBS      0.50  0.02              1     7.67   7.67  15.34   36.83
 4     HAGL       0.50 2.50E-02 .187      1
       TOTAL           13.76    100.00         62.140                298.38

         * NOT COMPUTED IN PERCENT COMPOSITION
         T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
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ATCO		37.06
OPPO		12.24
	Shrub Prod.	49.30
	Total	347.68

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PRECIPITATION DATA
 RAIN GUAGE NO. 10    BOYSEN RESERV EXCL    AUGUST 3/71
OCT. 15 TO APR. 15  =  .83
APR. 15 TO JULY 1   = 3.42
JULY 1 TO SEPT. 1   =  .65
SEPT. 1 TO OCT. 15  = 1.38
SEASON TOTAL        = 6.28
LONG TERM AVERAGE   = 4.84
```

**No utilization

1002 BOYSEN RESERV EXCL AUGUST 3/71 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*OPPO	3.50	.175		2				
	PER GRASS	189.50	9.47		18	40.13	2.23	0.21	192.69
3	BOGR	189.50	9.47	97.6	18	40.13	2.23	0.21	192.69
	PER FORBS	2.60	0.13		12	5.07	0.42	1.95	24.34
2	AST	2.30	.115	1.18	10				
2	SPCO	0.30	1.50E-02	.154	3				
	ANN GRASS	0.30	0.01		3	0.13	0.04	0.43	0.62
5	MUSQ	0.30	1.50E-02	.154	3				
	ANN FORBS	1.80	0.09		8	14.93	1.87	8.29	71.69
4	HAGL	1.40	7.00E-02	.721	6				
4	GIPU	0.10	T	5.15E-02	1				
4	MATA	0.30	1.50E-02	.154	3				
	TOTAL		9.88	100.00		60.260			289.35

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ATCO	14.83
OPPO	5.23
Shrub Prod.	20.06
Total	309.41

PRECIPITATION DATA
RAIN GUAGE NO.10 BCYSEN RESERV EXCL AUGUST 3/71
OCT. 15 TO APR. 15 = .83
APR. 15 TO JULY 1 = 3.42
JULY 1 TO SEPT. 1 = .65
SEPT. 1 TO OCT. 15 = 1.38
SEASON TOTAL = 6.28
LONG TERM AVERAGE = 4.84

**No utilization

2007 BUD KIMBAL EXCL JULY 22/71 IN NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	214.00	10.7		8				
6	*OPPO	4.00	.200		1				
6	*PHHO	5.30	.265		6				
PER GRASS		24.80	1.24		20	44.45	2.22	1.79	213.44
3	AGSM	19.80	.990	64.7	20	39.89	1.99	2.01	191.54
3	AGSP	4.50	.225	14.7	2	4.18	2.09	0.93	20.071
3	POSE	0.50	2.50E-02	1.63	5	0.38	0.08	0.76	1.8246
PER FORBS		1.70	0.08		9	1.67	0.19	0.98	8.02
2	ALTE	0.10	T	.327	1				
2	ERPU	1.40	7.00E-02	4.58	6				
2	SPCO	0.20	1.00E-02	.654	2				
ANN FORBS		4.10	0.20		16	1.81	0.11	0.44	8.69
4	CHEN	0.20	1.00E-02	.654	2				
4	DEPI	1.00	5.00E-02	3.27	10				
4	DRA	0.10	T	.327	1				
4	LARE	0.70	3.50E-02	2.29	7				
4	LEDE	1.00	5.00E-02	3.27	10				
4	MIGR	0.60	3.00E-02	1.96	6				
4	PLSP	0.50	2.50E-02	1.63	5				
	TOTAL		12.69	100.00		47.930			230.15

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	124.70
OPPO	8.83
PHHO	4.22
Shrub Prod.	137.75
Total	367.90

PRECIPITATION DATA
RAIN GUAGE NO. 41 BUD KIMBAL EXCL JULY 22/71
OCT. 15 TO APR. 15 = 2.64
APR. 15 TO JULY 1 = 4.30
JULY 1 TO SEPT. 1 = .20
SEPT. 1 TO OCT. 15 = 2.50
SEASON TOTAL = 9.64
LONG TERM AVERAGE = 9.28

**No utilization

2007 BUD KIMBAL EXCL JULY 22/71 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	94.00	4.70		6				
6	*OPPO	46.00	2.30		3				
	PER GRASS	19.90	0.99		20	38.18	1.91	1.92	183.33
3	AGSM	8.50	.425	31.8	18	27.25	1.51	3.21	130.85
3	POSE	11.40	.570	42.7	18	10.93	0.61	0.96	52.483
	ANN GRASS	0.10	0.00		1	0.03	0.03	0.30	0.14
5	FEOC	0.10	T	.375	1				
	ANN FORBS	6.70	0.33		19	11.46	0.60	1.71	55.03
4	DEPI	0.70	3.50E-02	2.62	7				
4	LARE	1.70	8.50E-02	6.37	13				
4	LEDE	1.40	7.00E-02	5.24	14				
4	MIGR	0.50	2.50E-02	1.87	5				
4	PLSP	2.30	.115	8.61	19				
4	UMB	0.10	T	.375	1				
	TOTAL		8.33	100.00		49.670			238.50

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	107.37
OPPO	9.60
PHHO	1.68
Shrub Prod.	118.65
Total	357.15

PRECIPITATION DATA
RAIN GUAGE NO. 41 BUD KIMBAL EXCL JULY 22/71
OCT. 15 TO APR. 15 = 2.64
APR. 15 TO JULY 1 = 4.30
JULY 1 TO SEPT. 1 = .20
SEPT. 1 TO OCT. 15 = 2.50
SEASON TOTAL = 9.64
LONG TERM AVERAGE = 9.28

**No utilization

2007 BUD KIMBAL EXCL JULY 22/71 IN SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARHO	0.10	T		1				
6	*OPPO	8.00	.400		3				
6	*PHHO	0.60	3.00E-02		2				
PER GRASS		32.80	1.64		20	89.60	4.48	2.73	430.23
3	AGSM	19.00	.950	43.4	20	67.79	3.39	3.57	325.51
3	POSE	5.20	.260	11.9	10	4.04	0.40	0.78	19.399
3	SIHY	1.10	5.50E-02	2.51	3	2.79	0.93	2.54	13.397
3	STCO	7.50	.375	17.1	4	14.98	3.74	2.00	71.929
PER FORBS		0.60	0.03		2	0.45	0.22	0.75	2.16
2	ALTE	0.50	2.50E-02	1.14	1				
2	CRBR	0.10	T	.228	1				
ANN GRASS		1.50	0.07		13	4.39	0.34	2.93	21.08
5	BRTE	0.20	1.00E-02	.457	2				
5	FEOC	1.30	6.50E-02	2.97	13				
ANN FORBS		8.90	0.44		20	19.13	0.96	2.15	91.86
4	CHEN	0.20	1.00E-02	.457	2				
4	DEPI	1.30	6.50E-02	2.97	13				
4	DRA	0.20	1.00E-02	.457	2				
4	LARE	2.40	.120	5.48	16				
4	LEDE	1.70	8.50E-02	3.88	13				
4	MIGR	2.10	.105	4.79	13				
4	PLSP	1.00	5.00E-02	2.28	10				
	TOTAL		2.62	100.00		113.57			545.33

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	19.63
OPPO	14.40
PHHO	..14
Shrub Prod.	34.17
Total	579.50

PRECIPITATION DATA
RAIN GUAGE NO. 41 BUD KIMBAL EXCL JULY 22/71
OCT. 15 TO APR. 15 = 2.64
APR. 15 TO JULY 1 = 4.30
JULY 1 TO SEPT. 1 = .20
SEPT. 1 TO OCT. 15 = 2.50
SEASON TOTAL = 9.64
LONG TERM AVERAGE = 9.28

**No utilization

2007 BUD KIMBAL EXCL JULY 22/71 OUT SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
	PER GRASS	24.80	1.24		20	61.92	3.10	2.50	297.32
3	AGSM	10.40	.520	27.2	20	51.16	2.56	4.92	245.65
3	POSE	14.30	.715	37.3	20	10.56	0.53	0.74	50.706
3	SIHY	0.10	T	.261	1	0.20	0.20	2.00	.96034
	PER FORBS	0.50	0.02		1	1.05	1.05	2.10	5.04
2	ERPU	0.50	2.50E-02	1.31	1				
	ANN GRASS	3.50	0.17		19	18.29	0.96	5.23	87.82
5	FEOC	3.50	.175	9.14	19				
	ANN FORBS	9.50	0.47		20	31.66	1.58	3.33	152.02
4	CHEN	0.20	1.00E-02	.522	2				
4	DEPI	0.40	2.00E-02	1.04	4				
4	LARE	1.20	6.00E-02	3.13	12				
4	LEDE	0.70	3.50E-02	1.83	7				
4	MIGR	0.90	4.50E-02	2.35	9				
4	PLSP	6.10	.305	15.9	20				
	TOTAL		1.91	100.00		112.92			542.21

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	1.15
OPPO	10.22
Shrub Prod.	11.37
Total	553.58

PRECIPITATION DATA
RAIN GUAGE NO. 41 BUD KIMBAL EXCL JULY 22/71
OCT. 15 TO APR. 15 = 2.64
APR. 15 TO JULY 1 = 4.30
JULY 1 TO SEPT. 1 = .20
SEPT. 1 TO OCT. 15 = 2.50
SEASON TOTAL = 9.64
LONG TERM AVERAGE = 9.28

**No utilization

2002 BUFFAL CREEK EXCL JULY 22/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS ** PER AC.
6	*ARTR	107.70	5.38		8				
6	*PHHO	8.80	.440		7				
	PER GRASS	202.00	10.10		20	93.56	4.68	0.46	449.25
3	AGSM	2.00	.100	.971	12	6.40	0.53	3.20	30.731
3	AGSP	158.20	7.91	76.8	17	68.59	4.03	0.43	329.35
3	BOGR	18.50	.925	8.98	2	2.43	1.21	0.13	11.668
3	POSE	23.30	1.16	11.3	19	16.14	0.85	0.69	77.499
	PER FORBS	1.30	0.06		8	1.06	0.13	0.82	5.09
2	ALTE	0.10	T	4.86E-02	1				
2	ERPU	0.20	1.00E-02	9.71E-02	2				
2	SPCO	0.80	4.00E-02	.389	4				
2	UMB	0.20	1.00E-02	9.71E-02	2				
	ANN GRASS	0.70	0.03		7	0.52	0.07	0.74	2.50
5	BRTE	0.70	3.50E-02	.340	7				
	ANN FORBS	1.90	0.09		13	0.34	0.03	0.18	1.63
4	CHEN	0.10	T	4.86E-02	1				
4	DEPI	0.80	4.00E-02	.389	8				
4	LARE	0.10	T	4.86E-02	1				
4	LEDE	0.10	T	4.86E-02	1				
4	MIGR	0.30	1.50E-02	.146	3				
4	PLSP	0.50	2.50E-02	.243	5				
	TOTAL		16.12	100.00		95.480			458.47

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	92.93
EULA	.38
OPPO	7.49
PHHO	7.10
Shrub Prod.	107.90
Total	566.37

PRECIPITATION DATA
RAIN GUAGE NO. 7 BUFFAL CREEK EXCL JULY 22/71
OCT. 15 TO APR. 15 = 2.90
APR. 15 TO JULY 1 = 4.67
JULY 1 TO SEPT. 1 = .36
SEPT. 1 TO OCT. 15 = 2.90
SEASON TOTAL =10.83
LONG TERM AVERAGE =10.41

**No utilization

2002 BUFFAL CREEK EXCL JULY 22/71 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	18.00	.900		8				
6	*OPPO	15.00	.750		3				
6	*PHHO	1.50	7.50E-02		2				
	PER GRASS	54.90	2.74		20	56.92	2.85	1.04	273.31
3	AGSM	2.40	.120	4.09	15	14.10	0.94	5.87	67.704
3	AGSP	13.40	.670	22.8	9	18.92	2.10	1.41	90.848
3	BOGR	21.00	1.05	35.8	4	5.84	1.46	0.28	28.042
3	POSE	18.10	.905	30.8	19	18.06	0.95	1.00	86.719
	PER FORBS	1.60	0.08		6	1.05	0.17	0.66	5.04
2	ALTE	0.10	T	.170	1				
2	ERPU	1.10	5.50E-02	1.87	2				
2	SPCO	0.30	1.50E-02	.511	3				
2	UMB	0.10	T	.170	1				
	ANN GRASS	0.60	0.03		6	0.18	0.03	0.30	0.86
5	BRTE	0.60	3.00E-02	1.02	6				
	ANN FORBS	1.60	0.08		10	0.24	0.02	0.15	1.15
4	CHEN	0.10	T	.170	1				
4	DEPI	0.30	1.50E-02	.511	3				
4	LARE	0.20	1.00E-02	.341	2				
4	LEDE	0.40	2.00E-02	.681	4				
4	PLSP	0.60	3.00E-02	1.02	6				
	TOTAL		4.66	100.00		58.390			280.37

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	77.42
EULA	.19
OPPO	14.01
PHHO	1.96
Shrub Prod.	93.58
Total	373.95

PRECIPITATION DATA
RAIN GUAGE NO. 7 BUFFAL CREEK EXCL JULY 22/71
OCT. 15 TO APR. 15 = 2.90
APR. 15 TO JULY 1 = 4.67
JULY 1 TO SEPT. 1 = .36
SEPT. 1 TO OCT. 15 = 2.90
SEASON TOTAL = 10.83
LONG TERM AVERAGE = 10.41

**No utilization

2003 BURNT WAGON EXCL JULY 8/71 INSIDE NATIVE

NUMBER OF PLOTS
COVER = 200, PRODUCTION = 20
PLOT SIZE 1 FT. X 10 FT.

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 200	TOTAL WGT. GMS/ 200 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
1	ATNU	1372.9	6.86	98.5	89	344.70	3.87	0.25	165.51
	PER GRASS	1.2	6.00E-03		3	0.47	0.16	0.39	.22568
3	SIHY	1.2	T	8.61E-02	3	0.47	0.16	0.39	.22568
	PER FORBS	15.20	0.08		54	10.80	0.20	0.71	5.19
2	ALTE	9.4	4.70E-02	.674	51				
2	MUDI	5.8	2.90E-02	.416	54				
	ANN FORBS	5.00	0.02		50	2.00	0.04	0.40	0.96
4	EUSE	5.0	2.50E-02	.359	50				
	TOTAL		7.0	100.00		357.970			171.886

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

No shrubs Inside Native

PRECIPITATION DATA
RAIN GUAGE NO. 17 BURNT WAGON EXCL JULY 8/71
OCT. 15 TO APR. 15 = 1.20
APR. 15 TO JULY 1 = 2.37
JULY 1 TO SEPT. 1 = 1.60
SEPT. 1 TO OCT. 15 = 1.54
SEASON TOTAL = 6.71
LONG TERM AVERAGE = 6.14

**No utilization

```
        2003    BURNT   WAGON   EXCL    JULY    12071  OUTSID NATIVE

                             NUMBER OF PLOTS
                      COVER = 200, PRODUCTION = 20
                         PLOT SIZE 1 FT. X 10 FT.
PLANT   PLANT   TOTAL   AVE.    PERCENT   ABS.     TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-    PLOT     WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION    FREQ.    GMS/    /PLOT   BASAL   AC.
                AREA    BASAL             BASE     200     OCCUR-  AREA
                PER-    AREA              200      SQ.FT.  RENCES
                CENT

  1   ATNU      912.2   4.56       98.3      79     202.39    2.56   0.22   97.181
   PER GRASS      0.1   5.00E-04              1       0.23    0.23   2.30   .11044
  3   SIHY        0.1   T         1.08E-02    1       0.23    0.23   2.30   .11044
   PER FORBS     11.60   0.06                87       9.90    0.11   0.85    4.75
  2   ALTE        2.1   1.05E-02 .226        21
  2   MUDI        9.5   4.75E-02 1.02        87
   ANN FORBS      4.10   0.02                41       1.47    0.04   0.36    0.71
  4   EUSE        4.1   2.05E-02 .442        41
      TOTAL             4.6      100.00            213.990                 102.751

         * NOT COMPUTED IN PERCENT COMPOSITION
         T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

OPPO .01

Shrub Prod. .01

Total 102.76

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PRECIPITATION DATA
 RAIN GUAGE NO. 17     BURNT   WAGON   EXCL    JULY    12071
OCT. 15 TO APR. 15 = 1.20
APR. 15 TO JULY 1  = 2.37
JULY 1 TO SEPT. 1  = 1.60
SEPT. 1 TO OCT. 15 = 1.54
SEASON TOTAL       = 6.71
LONG TERM AVERAGE  = 6.14
```

**No utilization

1501 COCHRA EXCL AUGUST 3/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	271.00	13.5		13				
6	*OPPO	2.00	.100		1				
6	*PHHO	2.70	.135		4				
	PER GRASS	40.80	2.04		20	33.33	1.67	0.82	160.04
3	AGSM	6.80	.340	15.2	19	14.47	0.76	2.13	69.480
3	POSE	34.00	1.70	76.1	20	18.86	0.94	0.55	90.560
	PER FORBS	0.50	0.02		5	1.01	0.20	2.02	4.85
2	ALTE	0.50	2.50E-02	1.12	5				
	ANN GRASS	1.30	0.06		7	0.67	0.10	0.52	3.22
5	BRTE	1.10	5.50E-02	2.46	7				
5	FEOC	0.20	1.00E-02	.447	2				
	ANN FORBS	2.10	0.10		10	0.44	0.04	0.21	2.11
4	AGGL	0.20	1.00E-02	.447	2				
4	CHEN	0.40	2.00E-02	.895	4				
4	DEPI	0.40	2.00E-02	.895	4				
4	LEDF	0.60	3.00E-02	1.34	6				
4	PLSP	0.50	2.50E-02	1.12	5				
	TOTAL		16.02	100.00		35.450			170.22

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	157.06
OPPO	9.98
PHHO	2.98
Shrub Prod.	170.02
Total	340.24

PRECIPITATION DATA
RAIN GUAGE NO. 76 CCCHRA EXCL AUGUST 3/71
OCT. 15 TO APR. 15 = 2.34
APR. 15 TO JULY 1 = 4.65
JULY 1 TO SEPT. 1 = .51
SEPT. 1 TO OCT. 15 = 4.58
SEASON TOTAL = 12.08
LONG TERM AVERAGE = 10.28

**No utilization

1501 COCHRA EXCL AUGUST 3/71 INSIDE PITTED

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	74.00	3.70		11				
6	*PHHO	0.60	3.00E-02		2				
	PER GRASS	33.80	1.69		20	33.61	1.68	0.99	161.38
3	AGSM	3.70	.185	9.97	16	13.44	0.84	3.63	64.535
3	POSE	30.00	1.50	80.9	19	19.47	1.02	0.65	93.489
3	SIHY	0.10	T	.270	1	0.70	0.70	7.00	3.3612
	PER FORBS	0.60	0.03		6	0.98	0.16	1.63	4.71
2	ALTE	0.50	2.50E-02	1.35	5				
2	LERE	0.10	T	.270	1				
	ANN GRASS	0.70	0.03		5	0.54	0.11	0.77	2.59
5	BRTE	0.40	2.00E-02	1.08	4				
5	FEOC	0.30	1.50E-02	.809	3				
	ANN FORBS	2.00	0.10		12	0.83	0.07	0.41	3.99
4	CHEN	0.50	2.50E-02	1.35	5				
4	DEPI	0.40	2.00E-02	1.08	4				
4	GIPU	0.10	T	.270	1				
4	LARE	0.30	1.50E-02	.809	3				
4	LEDE	0.40	2.00E-02	1.08	4				
4	PLSP	0.30	1.50E-02	.809	3				
	TOTAL		5.58	100.00		35.960			172.67

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	157.06
OPPO	9.98
PHHO	2.98
Shrub Prod.	170.02
Total	342.69

PRECIPITATION DATA
RAIN GUAGE NO. 76 CCCHRA EXCL AUGUST 3/71
OCT. 15 TO APR. 15 = 2.34
APR. 15 TO JULY 1 = 4.65
JULY 1 TO SEPT. 1 = .51
SEPT. 1 TO OCT. 15 = 4.58
SEASON TOTAL = 12.08
LONG TERM AVERAGE = 10.28

**No utilization

1501 COCHRA EXCL AUGUST 3/71 INSIDE CULTIV

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	164.00	8.20		8				
6	*PHHO	0.10	T		1				
	PER GRASS	21.40	1.07		19	38.33	2.02	1.79	184.05
3	AGSM	4.30	.215	17.8	18	21.41	1.19	4.98	102.80
3	POSE	17.10	.855	71.0	19	16.92	0.89	0.99	81.245
	PER FORBS	0.60	0.03		6	0.66	0.11	1.10	3.17
2	ALTE	0.60	3.00E-02	2.49	6				
	ANN GRASS	0.40	0.02		4	0.40	0.10	1.00	1.92
5	BRTE	0.40	2.00E-02	1.66	4				
	ANN FORBS	1.70	0.08		12	1.00	0.08	0.59	4.80
4	CHEN	0.10	T	.415	1				
4	DEPI	0.70	3.50E-02	2.90	7				
4	LARE	0.10	T	.415	1				
4	LEDE	0.40	2.00E-02	1.66	4				
4	MIGR	0.10	T	.415	1				
4	PLSP	0.30	1.50E-02	1.24	3				
	TOTAL		9.41	100.00		40.390			193.94

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	157.06
OPPO	9.98
PHHO	2.98
Shrub Prod.	170.02
Total	363.96

PRECIPITATION DATA
RAIN GUAGE NO. 76 COCHRA EXCL AUGUST 3/71
OCT. 15 TO APR. 15 = 2.34
APR. 15 TO JULY 1 = 4.65
JULY 1 TO SEPT. 1 = .51
SEPT. 1 TO OCT. 15 = 4.58
SEASON TOTAL = 12.08
LONG TERM AVERAGE = 10.28

**No utilization

1501 COCHRA EXCL AUGUST 3/71 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	75.00	3.75		6				
	PER GRASS	35.30	1.76		20	46,98	2.35	1.33	225.58
3	AGSM	6.10	.305	15.7	20	28.51	1.43	4.67	136.90
3	POSE	29.20	1.46	75.3	19	18.47	0.97	0.63	88.687
	PER FORBS	0.60	0.03		5	0.96	0.19	1.60	4.61
2	ALTE	0.10	T	.258	1				
2	SPCO	0.20	1.00E-02	.515	2				
2	UMB	0.30	1.50E-02	.773	3				
	ANN GRASS	0.70	0.03		6	1.55	0.26	2.21	7.44
5	BRTE	0.50	2.50E-02	1.29	4				
5	FEOC	0.20	1.00E-02	.515	2				
	ANN FORBS	2.20	0.11		15	1.89	0.13	0.86	9.08
4	CHEN	0.40	2.00E-02	1.03	4				
4	DEPI	0.10	T	.258	1				
4	LARE	0.20	1.00E-02	.515	2				
4	LEDE	1.00	5.00E-02	2.58	10				
4	PLSP	0.50	2.50E-02	1.29	5				
	TOTAL		5.69	100.00		51.380			246.71

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	102.81
OPPO	9.93
PHHO	.67
Shrub Prod.	113.41
Total	360.12

PRECIPITATION DATA
RAIN GUAGE NO. 76 COCHRA EXCL AUGUST 3/71

OCT. 15 TO APR. 15 = 2.34
APR. 15 TO JULY 1 = 4.65
JULY 1 TO SEPT. 1 = .51
SEPT. 1 TO OCT. 15 = 4.58
SEASON TOTAL = 12.08
LONG TERM AVERAGE = 10.28

**No utilization

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              1501    COCHRA EXCL              AUGUST 3/71    OUT     SPRAY

                                        NUMBER PLOTS = 20
                                          PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.     PERCENT  ABS.     TOTAL   AVE.     WGT./    LBS**
CODE    NAME     TRANS   PER-     COMPO-   PLOT     WGT.    WGT.     UNIT     PER
                 BASAL   CENT     SITION   FREQ.    GMS/20  /PLOT    BASAL    AC.
                 AREA    BASAL             BASE     SQ.FT.  OCCUR-   AREA
                 PER-    AREA              20               RENCES
                 CENT

  6     *ARTR     58.00 2.90                   5
  6     *OPPO      5.00 .250                   1
  6     *PHHO      0.20 1.00E-02               2
   PER GRASS      55.20  2.76                 20       88.57     4.43   1.60 425.29
  3     AGSM       8.00 .400         13.7     19       53.07     2.79   6.63  254.83
  3     AGSP       1.10 5.50E-02 1.89          3        3.86     1.29   3.51  18.535
  3     BOGR      10.50 .525         18.0      2        2.39     1.19   0.23  11.476
  3     POSE      35.10 1.75         60.2     20       28.10     1.40   0.80  134.93
  3     STCO       0.50 2.50E-02 .858          1        1.15     1.15   2.30  5.5219
   PER FORBS       0.10  0.00                  1        0.10     0.10   1.00    0.48
  2     ALTE       0.10 T            .172      1
   ANN GRASS       1.80  0.09                  4        5.84     1.46   3.24   28.04
  5     BRTE       1.60 8.00E-02 2.74          3
  5     FEOC       0.20 1.00E-02 .343          2
   ANN FORBS       1.20  0.06                 11        0.28     0.03   0.23    1.34
  4     CHEN       0.10 T            .172      1
  4     LARE       0.20 1.00E-02 .343          2
  4     LEDE       0.60 3.00E-02 1.03          6
  4     PLSP       0.30 1.50E-02 .515          3
      TOTAL             6.07      100.00               94.790                  455.15

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

        ARTR                                                                    17.66
        OPPO                                                                     3.74
        PHHO                                                                      .33
                                                               Shrub Prod.      21.73
                                                                     Total     476.88


PRECIPITATION DATA
 RAIN GUAGE NO. 76    COCHRA EXCL             AUGUST 3/71
OCT. 15 TO APR. 15  =  2.34
APR. 15 TO JULY 1   =  4.65
JULY 1 TO SEPT. 1   =   .51
SEPT. 1 TO OCT. 15  =  4.58
SEASON TOTAL        = 12.08
LONG TERM AVERAGE   = 10.28
```

**No utilization

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        1901   CUMBER EXCL   NO.1   AUGUST 11/71  INSIDE NATIVE

                                 NUMBER PLOTS = 20
                                   PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT   ABS.    TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-    PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION    FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL             BASE    SQ.FT.  OCCUR-  AREA
                PER-    AREA              20              RENCES
                CENT

  6    *ARTR    53.00 2.65                  6
  6    *ATNU    87.00 4.35                  6
  6    *CHVI   135.00 6.75                  9
  6    *SAVE    45.00 2.25                  3
   PER GRASS    50.40  2.52                20     34.79    1.74    0.69 167.05
  3     AGSM     6.60 .330          12.2   19     15.14    0.80    2.29  72.698
  3     POSE    26.20 1.31          48.3   12     11.36    0.95    0.43  54.547
  3     SIHY    17.60 .880          32.5    5      8.29    1.66    0.47  39.806
   PER FORBS     2.90  0.14                 8      3.02    0.38    1.04  14.50
  2     PHLO     2.40 .120          4.43    8
  2     PHMU     0.50 2.50E-02 .923         1
   ANN FORBS     0.90  0.04                 5      0.36    0.07    0.40   1.73
  4     CORA     0.20 1.00E-02 .369         2
  4     DEPI     0.20 1.00E-02 .369         2
  4     TRI      0.50 2.50E-02 .923         1
      TOTAL           18.71    100.00             38.170                 183.28

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
       ARTR                                                              345.55
       ATCO                                                                 .33
       ATNU                                                               73.53
       CHVI                                                               98.73
       EULA                                                                2.83
       PHHO                                                               24.09
       SAVE                                                              117.98
       TESP                                                                1.10
                                                          Shrub Prod.    664.14
PRECIPITATION DATA                                              Total    847.42
 RAIN GUAGE NO.  31   CUMBER EXCL    NO.1   AUGUST 11/71
OCT. 15 TO APR. 15 =  3.55
APR. 15 TO JULY 1  =  3.42
JULY 1 TO SEPT. 1  =   .84
SEPT. 1 TO OCT. 15 =   .38
SEASON TOTAL       =  8.19
LONG TERM AVERAGE  =  8.45
```

**No utilization

```
        1901   CUMBER EXCL   NO.1   AUGUST 11/71  OUT    NATIVE

                               NUMBER PLOTS = 20
                                 PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.    TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-   PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION   FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL            BASE    SQ.FT.  OCCUR-  AREA
                PER-    AREA             20              RENCES
                CENT

  6    *ARTR     0.50 2.50E-02             1
  6    *ATNU    32.50 1.63                 8
  6    *CHVI    48.00 2.40                 4
  6    *TESP    12.00 .600                 1
   PER GRASS    18.80  0.94               15      15.86    1.06    0.84    76.15
  3    AGSM      9.80 .490       44.5     13      14.55    1.12    1.48    69.865
  3    POSE      8.00 .400       36.4      4       0.93    0.23    0.12    4.4656
  3    SIHY      1.00 5.00E-02 4.55        2       0.38    0.19    0.38    1.8246
   PER FORBS     1.00  0.05                6       0.48    0.08    0.48     2.30
  2    PHLO      1.00 5.00E-02 4.55        6
   ANN FORBS     2.20  0.11               11       2.16    0.20    0.98    10.37
  4    CHEN      0.40 2.00E-02 1.82        4
  4    LARE      1.70 8.50E-02 7.73        9
  4    TRI       0.10 T          .455      1
     TOTAL            5.75     100.00             18.500                   88.831

     * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
       ARTR                                                          165.34
       ATCO                                                             .48
       ATNU                                                          127.96
       CHVI                                                           31.29
       EULA                                                            1.15
       OPPO                                                             .28
       PHHO                                                            8.06
       SAVE                                                          131.18
       TESP                                                           14.68
PRECIPITATION DATA                                       Shrub Prod. 480.42
 RAIN GUAGE NO. 31    CUMBER EXCL   NO.1   AUGUST 11/71      Total   569.25
OCT. 15 TO APR. 15  = 3.55
APR. 15 TO JULY 1   = 3.42
JULY 1 TO SEPT. 1   =  .84
SEPT. 1 TO OCT. 15  =  .38
SEASON TOTAL        = 8.19
LONG TERM AVERAGE   = 8.45
```

**No utilization

```
          1901    CUMBER  EXCL    NO.1    AUGUST 11/71   INSIDE  SPRAY

                              NUMBER PLOTS = 20
                                 PLOT SIZE 1X1
PLANT   PLANT   TOTAL    AVE.    PERCENT   ABS.    TOTAL   AVE.    WGT./   LBS **
CODE    NAME    TRANS    PER-    COMPO-    PLOT    WGT.    WGT.    UNIT    PER
                BASAL    CENT    SITION    FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA     BASAL             BASE    SQ.FT.  OCCUR-  AREA
                PER-     AREA              20              RENCES
                CENT

  6    *CHVI     1.00 5.00E-02               1
   PER GRASS    78.80  3.94                 20    102.57    5.13   1.30  492.51
  3    AGSM     46.20 2.31       56.3       19     70.36    3.70   1.52  337.85
  3    POSE     19.60 .980       23.9       12     10.16    0.85   0.52  48.785
  3    SIHY     13.00 .650       15.9        4     22.05    5.51   1.70  105.88
   PER FORBS     2.50  0.12                  9      2.93    0.33   1.17  14.07
  2    PHLO      2.50 .125       3.05        9
   ANN FORBS     0.70  0.03                  6      0.80    0.13   1.14   3.84
  4    CHEN      0.20 1.00E-02 .244          2
  4    DEPI      0.20 1.00E-02 .244          2
  4    LARE      0.30 1.50E-02 .366          3
     TOTAL            4.15     100.00               106.30                510.42

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

      ARTR                                                                 81.40
      CHVI                                                                 16.17
      SAVE                                                                 19.39
                                                         Shrub Prod.      116.96
                                                               Total      627.38
PRECIPITATION DATA
 RAIN GUAGE NO. 31    CUMBER EXCL    NO.1    AUGUST 11/71
OCT. 15 TO APR. 15  =  3.55
APR. 15 TO JULY 1   =  3.42
JULY 1 TO SEPT. 1   =   .84
SEPT. 1 TO OCT. 15  =   .38
SEASON TOTAL        =  8.19
LONG TERM AVERAGE   =  8.45
```

**No utilization

1901 CUMBER EXCL NO.1 AUGUST 11/71 OUT SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS ** PER AC.
6	*CHIV	1.10	5.50E-02		2				
6	*SAVE	0.30	1.50E-02		3				
PER GRASS		29.10	1.45		20	35.79	1.79	1.23	171.85
3	AGSM	17.10	.855	44.9	19	30.26	1.59	1.77	145.30
3	ORHY	1.50	7.50E-02	3.94	2	1.18	0.59	0.79	5.6660
3	POSE	9.90	.495	26.0	9	3.05	0.34	0.31	14.645
3	SIHY	0.60	3.00E-02	1.57	2	1.30	0.65	2.17	6.2422
PER FORBS		1.50	0.07		10	1.40	0.14	0.93	6.72
2	ALTE	0.10	T	.262	1				
2	AST	0.10	T	.262	1				
2	PHLO	1.30	6.50E-02	3.41	9				
ANN FORBS		7.50	0.37		20	39.52	1.98	5.27	189.76
4	ATAG	2.80	.140	7.35	7				
4	CHEN	3.10	.155	8.14	19				
4	DEPI	0.30	1.50E-02	.787	3				
4	LARE	1.30	6.50E-02	3.41	9				
	TOTAL		1.97	100.00		76.710			368.34

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	15.26
ATNU	12.62
CHVI	24.00
PHHO"	.81
SAVE	71.85
Shrub Prod.	124.54
Total	492.88

PRECIPITATION DATA
RAIN GUAGE NO. 31 CUMBER EXCL NO.1 AUGUST 11/71
OCT. 15 TO APR. 15 = 3.55
APR. 15 TO JULY 1 = 3.42
JULY 1 TO SEPT. 1 = .84
SEPT. 1 TO OCT. 15 = .38
SEASON TOTAL = 8.19
LONG TERM AVERAGE = 8.45

**No utilization

1201 CUMBER EXCL NO.2 AUGUST 12/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARAR	244.10	12.2		14				
6	*CHVI	98.10	4.90		11				
6	*TECA	10.00	.500		1				
PER GRASS		42.70	2.13		19	87.00	4.58	2.04	417.75
3	AGSM	29.50	1.47	59.2	16	69.69	4.36	2.36	334.63
3	KOCR	0.10	T	.201	1	0.20	0.20	2.00	.96034
3	POAM	1.60	8.00E-02	3.21	3	9.50	3.17	5.94	45.616
3	POFE	9.00	.450	18.1	3	6.26	2.09	0.70	30.059
3	POSE	2.50	.125	5.02	2	1.35	0.67	0.54	6.4823
PER FORBS		6.10	0.30		15	9.56	0.64	1.57	45.90
2	ASMI	2.40	.120	4.82	5				
2	ERMI	1.50	7.50E-02	3.01	3				
2	ERUM	1.30	6.50E-02	2.61	4				
2	PHLO	0.50	2.50E-02	1.00	5				
2	PHMU	0.10	T	.201	1				
2	VIO	0.30	1.50E-02	.602	3				
ANN FORBS		1.00	0.05		8	1.21	0.15	1.21	5.81
4	ARA	0.10	T	.201	1				
4	CORA	0.20	1.00E-02	.402	2				
4	DEPI	0.30	1.50E-02	.602	3				
4	TRI	0.40	2.00E-02	.803	4				
	TOTAL		20.10	100.00		97.770			469.46

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARAR	181.77
ARTR	46.84
CHVI	99.93
ERMI	6.28
ERUM	24.04
LEPU	7.48
PHHO	.67
PHMU	23.80
SYPC	2.01
TECA	5.66
Shrub Prod.	398.48
Total	867.94

PRECIPITATION DATA
RAIN GUAGE NO. 32 CUMBER EXCL NO.2 AUGUST 12/71
OCT. 15 TO APR. 15 = 7.11
APR. 15 TO JULY 1 = 1.40
JULY 1 TO SEPT. 1 = 1.65
SEPT. 1 TO OCT. 15 = .15
SEASON TOTAL =10.31
LONG TERM AVERAGE = 9.29

**No utilization

1201 CUMBER EXCL NO.2 AUGUST 12/71 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARAR	170.50	8.52		17				
6	*CHVI	56.10	2.80		7				
6	*PHHO	4.50	.225		3				
	PER GRASS	29.70	1.48		19	31.01	1.63	1.04	148.90
3	AGSM	3.80	.190	9.87	13	11.35	0.87	2.99	54.499
3	POAM	3.10	.155	8.05	5	5.13	1.03	1.65	24.633
3	POFE	6.60	.330	17.1	5	5.54	1.11	0.84	26.601
3	POSE	13.70	.685	35.6	10	8.24	0.82	0.60	39.566
3	STWI	2.50	.125	6.49	3	0.75	0.25	0.30	3.6013
	PER FORBS	7.60	0.38		16	17.83	1.11	2.35	85.61
2	ERMI	5.30	.265	13.8	11				
2	ERPU	0.20	1.00E-02	.519	2				
2	ERUM	0.50	2.50E-02	1.30	1				
2	MER	0.10	T	.260	1				
2	PHLO	1.20	6.00E-02	3.12	8				
2	VIO	0.30	1.50E-02	.779	3				
	ANN FORBS	1.20	0.06		4	1.80	0.45	1.50	8.64
4	CORA	0.80	4.00E-02	2.08	4				
4	DEPI	0.10	T	.260	1				
4	TRI	0.30	1.50E-02	.779	3				
	TOTAL		13.48	100.00		50.640			243.16

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARAR	212.97
CHVI	85.34
ERMI	22.46
ERUM	6.86
LEPU	15.40
PHHO	10.60
PHMU	.67
TECA	24.04
Shrub Prod.	378.34
Total	621.50

PRECIPITATION DATA
RAIN GUAGE NO. 32 CUMBER EXCL NO.2 AUGUST 12/71
OCT. 15 TO APR. 15 = 7.11
APR. 15 TO JULY 1 = 1.40
JULY 1 TO SEPT. 1 = 1.65
SEPT. 1 TO OCT. 15 = .15
SEASON TOTAL = 10.31
LONG TERM AVERAGE = 9.29

** Production adjusted for utilization

	247.95
	378.34
Total Adjusted	626.29

1201 CUMBER EXCL NO.2 AUGUST 12/71 INSIDE SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*TECA	0.50	2.50E-02		1				
	PER GRASS	74.40	3.72		20	135.89	6.79	1.83	652.50
3	AGSM	29.20	1.46	35.6	20	85.24	4.26	2.92	409.30
3	POAM	5.50	.275	6.71	6	14.84	2.47	2.70	71.257
3	POFE	22.00	1.10	26.8	5	22.20	4.44	1.01	106.60
3	POSE	15.60	.780	19.0	8	12.81	1.60	0.82	61.510
3	STWI	2.10	.105	2.56	4	0.80	0.20	0.38	3.8414
	PER FORBS	3.70	0.18		6	14.65	2.44	3.96	70.34
2	ASMI	2.60	.130	3.17	3				
2	MEN	0.50	2.50E-02	.610	1				
2	PHLO	0.60	3.00E-02	.732	2				
	ANN FORBS	3.90	0.19		17	3.63	0.21	0.93	17.43
4	DEPI	0.30	1.50E-02	.366	3				
4	TRI	3.60	.180	4.39	16				
	TOTAL		4.12	100.00		154.17			740.28

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

CHVI	23.04
ERMI	1.92
ERUM	.19
TECA	5.90
Shrub Prod.	31.05
Total	771.33

PRECIPITATION DATA
RAIN GUAGE NO. 32 CUMBER EXCL NO.2 AUGUST 12/71
OCT. 15 TO APR. 15 = 7.11
APR. 15 TO JULY 1 = 1.40
JULY 1 TO SEPT. 1 = 1.65
SEPT. 1 TO OCT. 15 = .15
SEASON TOTAL = 10.31
LONG TERM AVERAGE = 9.29

**No utilization

```
        1201    CUMBER EXCL    NO.2    AUGUST 12/71   OUT     SPRAY

                               NUMBER PLOTS = 20
                                 PLOT SIZE 1X1
PLANT   PLANT   TOTAL    AVE.    PERCENT   ABS.    TOTAL   AVE.    WGT./   LBS **
CODE    NAME    TRANS    PER-    COMPO-    PLOT    WGT.    WGT.    UNIT    PER
                BASAL    CENT    SITION    FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA     BASAL             BASE    SQ.FT.  OCCUR-  AREA
                PER-     AREA              20              RENCES
                CENT

  6    *ARAR      3.00 .150                  1
  6    *CHVI     41.00 2.05                  3
   PER GRASS     59.40  2.97                19     33.87    1.78   0.57  162.63
  3    AGSM      20.30 1.01        30.9     19     27.11    1.43   1.34   130.17
  3    POSE      20.60 1.03        31.4     11      4.94    0.45   0.24   23.720
  3    STCO       2.00 .100        3.04      1      0.30    0.30   0.15   1.4405
  3    STWI      16.50 .825        25.1      3      1.52    0.51   0.09   7.2986
   PER FORBS      5.10  0.25                 9      4.28    0.48   0.84   20.55
  2    ASMI       0.70 3.50E-02 1.07         3
  2    ERPU       0.10 T         .152        1
  2    MEN        0.40 2.00E-02 .609         4
  2    PHLO       0.90 4.50E-02 1.37         5
  2    PHMU       3.00 .150        4.57      1
   ANN FORBS      1.20  0.06                12      1.28    0.11   1.07    6.15
  4    CHEN       0.10 T         .152        1
  4    CORA       0.10 T         .152        1
  4    DEPI       0.30 1.50E-02 .457         3
  4    TRI        0.70 3.50E-02 1.07         7
     TOTAL              5.48      100.00          39.430                  189.33

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
       ARAR                                                                1.20
       CHVI                                                               53.80
       ERMI                                                                9.26
       ERUM                                                                 .09
       PHHO                                                                3.79
       TECA                                                                6.72
                                                          Shrub Prod.     74.86
PRECIPITATION DATA                                              Total    264.19
 RAIN GUAGE NO. 32    CUMBER EXCL    NO.2    AUGUST 12/71
OCT. 15 TO APR. 15 =  7.11
APR. 15 TO JULY 1  =  1.40
JULY 1 TO SEPT. 1  =  1.65
SEPT. 1 TO OCT. 15 =   .15
SEASON TOTAL       = 10.31
LONG TERM AVERAGE  =  9.29
```

**Production adjusted for utilization

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                                                                         234.48
                                                                          74.86
                                                     Total adjusted      309.34
```

1202 CUMBER EXCL NO.3 AUGUST 12/71 IN NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	228.00	11.4		10				
6	*CHVI	15.70	.785		14				
6	*PHHO	17.00	.850		2				
PER GRASS		41.10	2.05		20	38.29	1.91	0.93	183.86
3	AGSM	2.40	.120	4.64	7	4.36	0.62	1.82	20.935
3	AGSP	11.80	.590	22.8	9	10.71	1.19	0.91	51.426
3	POFE	17.50	.875	33.8	7	17.30	2.47	0.99	83.069
3	POSE	2.80	.140	5.42	7	1.21	0.17	0.43	5.8100
3	STCO	3.50	.175	6.77	3	1.29	0.43	0.37	6.1942
3	STWI	3.10	.155	6.00	2	3.42	1.71	1.10	16.422
PER FORBS		5.70	0.28		17	8.82	0.52	1.55	42.35
2	AST	2.10	.105	4.06	2				
2	ERMI	0.60	3.00E-02	1.16	2				
2	PHLO	2.90	.145	5.61	17				
2	VIO	0.10	T	.193	1				
ANN FORBS		4.90	0.24		18	23.92	1.33	4.88	114.86
4	CORA	3.60	.180	6.96	13				
4	TRI	1.30	6.50E-02	2.51	11				
TOTAL			15.62	100.00		71.030			341.06

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	379.58
CHVI	91.44
PHHO	14.93
TECA	4.18
Shrub Prod.	490.13
Total	831.19

PRECIPITATION DATA
RAIN GUAGE NO. 33 CUMBER EXCL NO.3 AUGUST 12/71
OCT. 15 TO APR. 15 = 6.27
APR. 15 TO JULY 1 = 4.27
JULY 1 TO SEPT. 1 = .26
SEPT. 1 TO OCT. 15 = 1.20
SEASON TOTAL = 12.00
LONG TERM AVERAGE = 11.08

**No utilization

```
      1202    CUMBER EXCL    NO.3    AUGUST 12/71   OUT     NATIVE

                                  NUMBER PLOTS = 20
                                    PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.    PERCENT  ABS.     TOTAL   AVE.     WGT./   LBS**
CODE    NAME     TRANS   PER-    COMPO-   PLOT     WGT.    WGT.     UNIT    PER
                 BASAL   CENT    SITION   FREQ.    GMS/20  /PLOT    BASAL   AC.
                 AREA    BASAL            BASE     SQ.FT.  OCCUR-   AREA
                 PER-    AREA             20               RENCES
                 CENT

  6    *ARTR    301.50 15.1                 11
  6    *CHVI      8.00 .400                  6
  6    *PHHO      3.50 .175                  4
   PER GRASS     15.00  0.75                19      19.87    1.05    1.32    95.41
  3     AGSM      2.70 .135        10.2     15       9.03    0.60    3.34    43.359
  3     AGSP      0.50 2.50E-02  1.89        1       2.28    2.28    4.56    10.948
  3     POFE      2.50 .125        9.43      3       2.02    0.67    0.81    9.6994
  3     POSE      6.70 .335        25.3     10       3.00    0.30    0.45    14.405
  3     SIHY      0.10 T           .377      1       0.05    0.05    0.50    .24008
  3     STCO      2.50 .125        9.43      4       3.49    0.87    1.40    16.758
   PER FORBS      9.20  0.46                18       6.75    0.37    0.73    32.41
  2     ERMI      5.60 .280        21.1      6
  2     PHLO      3.60 .180        13.6     16
   ANN FORBS      2.30  0.11                10       3.78    0.38    1.64    18.15
  4     CORA      1.40 7.00E-02  5.28        6
  4     DEPI      0.40 2.00E-02  1.51        4
  4     TRI       0.50 2.50E-02  1.89        5
      TOTAL           16.97     100.00             30.400                    145.97

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

 PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

       ARTR                                                                  471.84
       CHVI                                                                  148.03
       ERMI                                                                   14.54
       PHHO                                                                   16.56
       TECA                                                                   11.56
                                                             Shrub Prod.    662.53
                                                                   Total    808.50
 PRECIPITATION DATA
  RAIN GUAGE NO. 33   CUMBER EXCL    NO.3    AUGUST 12/71
 OCT. 15 TO APR. 15  = 6.27
 APR. 15 TO JULY 1   = 4.27
 JULY 1 TO SEPT. 1   =  .26
 SEPT. 1 TO OCT. 15  = 1.20
 SEASON TOTAL        =12.00
 LONG TERM AVERAGE   =11.08
```

**No utilization

```
            1202    CUMBER EXCL    NO.3    AUGUST 12/71   IN      SPRAY

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.    PERCENT   ABS.     TOTAL   AVE.     WGT./   LBS**
CODE    NAME     TRANS   PER-    COMPO-    PLOT     WGT.    WGT.     UNIT    PER
                 BASAL   CENT    SITION    FREQ.    GMS/20  /PLOT    BASAL   AC.
                 AREA    BASAL             BASE     SQ.FT.  OCCUR-   AREA
                 PER-    AREA              20               RENCES
                 CENT

  6    *ARTR     20.00  1.00                 1
  6    *PHHO      0.60  3.00E-02             2
   PER GRASS    103.80   5.19               20      164.36    8.22   1.58  789.21
  3     AGSM     12.10  .605       10.8      7       27.49    3.93   2.27  132.00
  3     AGSP     74.50  3.72       66.6     17      119.91    7.05   1.61  575.77
  3     POFE     12.50  .625       11.2      5       11.75    2.35   0.94   56.420
  3     POSE      3.70  .185       3.31      5        3.35    0.67   0.91   16.086
  3     STWI      1.00  5.00E-02  .894       1        1.86    1.86   1.86   8.9311
   PER FORBS      6.50   0.32               14       10.16    0.73   1.56   48.79
  2     ASMI      0.50  2.50E-02  .447       1
  2     AST       0.10  T         8.94E-02   1
  2     ERMI      4.00  .200       3.57      3
  2     PHLO      1.90  9.50E-02  1.70      11
   ANN FORBS      1.60   0.08                8        0.57    0.07   0.36    2.74
  4     TRI       1.60  8.00E-02  1.43       8
     TOTAL               6.62    100.00             175.09                 840.73

         * NOT COMPUTED IN PERCENT COMPOSITION
           T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	1.29
CHVI	28.60
ERMI	6.72
PHHO	3.26
TECA	3.16
Shrub Prod.	43.03
Total	883.76

```
PRECIPITATION DATA
 RAIN GUAGE NO. 33    CUMBER EXCL    NO.3    AUGUST 12/71
OCT. 15 TO APR. 15 = 6.27
APR. 15 TO JULY 1  = 4.27
JULY 1 TO SEPT. 1  =  .26
SEPT. 1 TO OCT. 15 = 1.20
SEASON TOTAL       =12.00
LONG TERM AVERAGE  =11.08
```

**No utilization

1202 CUMBER EXCL NO.3 AUGUST 12/71 OUT SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	1.00	5.00E-02		1				
6	*PHHO	1.00	5.00E-02		1				
PER GRASS		69.30	3.46		20	104.82	5.24	1.51	503.31
3	AGSM	17.70	.885	23.4	15	41.64	2.78	2.35	199.94
3	AGSP	22.00	1.10	29.1	11	46.24	4.20	2.10	222.03
3	ORHY	3.00	.150	3.96	1	0.51	0.51	0.17	2.4489
3	POFE	1.00	5.00E-02	1.32	1	0.70	0.70	0.70	3.3612
3	POSE	18.00	.900	23.8	12	6.76	0.56	0.38	32.459
3	SIHY	2.10	.105	2.77	4	3.18	0.79	1.51	15.269
3	STCO	2.50	.125	3.30	2	1.61	0.80	0.64	7.7307
3	STWI	3.00	.150	3.96	3	4.18	1.39	1.39	20.071
PER FORBS		5.80	0.29		17	9.21	0.54	1.59	44.22
2	ASMI	1.50	7.50E-02	1.98	2				
2	ERMI	2.00	.100	2.64	1				
2	PHLO	2.30	.115	3.04	15				
ANN GRASS		0.10	0.00		1	0.20	0.20	2.00	0.96
5	BRTE	0.10	T	.132	1				
ANN FORBS		0.50	0.02		5	1.23	0.25	2.46	5.91
4	DEPI	0.20	1.00E-02	.264	2				
4	LARE	0.10	T	.132	1				
4	TRI	0.20	1.00E-02	.264	2				
	TOTAL		3.88	100.00		115.46			554.40

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	118.70
CHVI	27.84
ERMI	10.17
PHHO	2.64
TECA	14.16
	173.51

PRECIPITATION DATA
RAIN GUAGE NO. 33 CUMBER EXCL NO.3 AUGUST 12/71
OCT. 15 TO APR. 15 = 6.27
APR. 15 TO JULY 1 = 4.27
JULY 1 TO SEPT. 1 = .26
SEPT. 1 TO OCT. 15 = 1.20
SEASON TOTAL = 12.00
LONG TERM AVERAGE = 11.08

**Production adjusted for utilization

	560.57
	173.51
Total Adjusted	734.08

```
         1902   CUMBER EXCL   NO.4   AUGUST 11/71  INSIDE NATIVE

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT   PLANT   TOTAL  AVE.   PERCENT  ABS.   TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS  PER-   COMPO-   PLOT   WGT.    WGT.    UNIT    PER
                BASAL  CENT   SITION   FREQ.  GMS/20  /PLOT   BASAL   AC.
                AREA   BASAL           BASE   SQ.FT.  OCCUR-  AREA
                PER-   AREA            20             RENCES
                CENT

  6    *ARSP    140.10 7.00              12
  6    *EULA      8.00 .400               1
  6    *TESP      0.50 2.50E-02           1
  1     ATNU    213.20 10.7      75.5    14     74.20   5.30   0.35   356.29
   PER GRASS     68.00  3.40             18     54.03   3.00   0.79  259.44
  3     SIHY     68.00 3.40      24.1    18     54.03   3.00   0.79   259.44
   PER FORBS      1.10  0.05              2      0.32   0.16   0.29     1.54
  2     PHMU      1.10 5.50E-02 .390      2
      TOTAL           21.54    100.00          128.55                 617.26

         * NOT COMPUTED IN PERCENT COMPOSITION
         T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARSP		46.99
EULA		.19
PHHO		18.14
TESP		8.44
	Shrub Prod.	73.76
	Total	691.02

```
PRECIPITATION DATA
 RAIN GUAGE NO. 34    CUMBER EXCL   NO.4   AUGUST 11/71
OCT. 15 TO APR. 15 =  4.50
APR. 15 TO JULY 1  =  3.56
JULY 1 TO SEPT. 1  =   .77
SEPT. 1 TO OCT. 15 =   .59
SEASCN TOTAL       =  9.42
LONG TERM AVERAGE  =  8.53
```

**No utilization

```
        1902   CUMBER EXCL   NO.4   AUGUST 11/71  OUT    NATIVE

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.    TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-   PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION   FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL            BASE    SQ.FT.  OCCUR-  AREA
                PER-    AREA             20              RENCES
                CENT

  6    *ARSP     12.20 .610                 6
  1     ATNU    259.00 12.9     96.2       10      95.07   9.51   0.37   456.50
   PER GRASS     10.00  0.50                6       6.33   1.05   0.63    30.39
  3     SIHY     10.00 .500      3.71       6       6.33   1.05   0.63   30.395
   ANN FORBS      0.20  0.01                2       0.74   0.37   3.70     3.55
  4     LARE      0.20 1.00E-02 7.43E-02    2
       TOTAL          14.07    100.00             102.14                 490.44

         * NOT COMPUTED IN PERCENT COMPOSITION
         T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARSP		26.30
TESP		9.36
	Shrub Prod.	35.66
	Total	526.10

```
PRECIPITATION DATA
 RAIN GUAGE NO. 34   CUMBER EXCL   NO.4   AUGUST 11/71
OCT. 15 TO APR. 15 = 4.50
APR. 15 TO JULY 1  = 3.56
JULY 1 TO SEPT. 1  =  .77
SEPT. 1 TO OCT. 15 =  .59
SEASON TOTAL       = 9.42
LONG TERM AVERAGE  = 8.53
```

**No utilization

```
        2004    DEMER   EXCL            JULY   21/71  INSIDE NATIVE

                          NUMBER PLOTS = 20
                            PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.    PERCENT   ABS.    TOTAL   AVE.    WGT./   LBS
CODE    NAME     TRANS   PER-    COMPO-    PLOT    WGT.    WGT.    UNIT    PER
                 BASAL   CENT    SITION    FREQ.   GMS/20  /PLOT   BASAL   AC.
                 AREA    BASAL             BASE    SQ.FT.  OCCUR-  AREA
                 PER-    AREA              20              RENCES
                 CENT

 6    *ARTR     316.00 15.8                 13
 6    *OPPO      16.00 .800                  2
  PER GRASS      33.50  1.67                19     19.21   1.01   0.57   92.24
 3    AGSM        1.90 9.50E-02 5.51        11      7.59   0.69   3.99   36.445
 3    BOGR       24.50 1.22      71.0        8      6.61   0.83   0.27   31.739
 3    POSE        3.60 .180      10.4        6      2.64   0.44   0.73   12.676
 3    SIHY        3.50 .175      10.1        3      2.37   0.79   0.68   11.380
  ANN GRASS       0.20  0.01                 2      0.11   0.05   0.55    0.53
 5    BRTE        0.20 1.00E-02 .580         2
  ANN FORBS       0.80  0.04                 6      0.06   0.01   0.07    0.29
 4    CHEN        0.20 1.00E-02 .580         2
 4    LARE        0.20 1.00E-02 .580         2
 4    LEDE        0.30 1.50E-02 .870         3
 4    PLSP        0.10 T         .290        1
    TOTAL              18.32    100.00             19.380                93.057

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
        ARTR                                                            198.43
        OPPO                                                             24.10
                                                          Shrub Prod.   222.53
                                                                Total   315.59


PRECIPITATION DATA
 RAIN GUAGE NO. 8       DEMER   EXCL              JULY    21/71
OCT. 15 TO APR. 15  =  2.42
APR. 15 TO JULY 1   =  4.32
JULY 1 TO SEPT. 1   =   .37
SEPT. 1 TO OCT. 15  =  2.88
SEASON TOTAL        =  9.99
LONG TERM AVERAGE   =  8.30
```

**No utilization

2004 DEMER EXCL JULY 21/71 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	173.50	8.67		7				
6	*OPPO	26.00	1.30		2				
	PER GRASS	36.60	1.83		20	21.24	1.06	0.58	101.99
3	AGSM	2.90	.145	7.34	12	5.25	0.44	1.81	25.209
3	BOGR	30.10	1.50	76.2	14	11.51	0.82	0.38	55.267
3	POSE	2.60	.130	6.58	10	2.15	0.21	0.83	10.324
3	SIHY	1.00	5.00E-02	2.53	1	2.33	2.33	2.33	11.188
	PER FORBS	0.30	0.01		3	0.95	0.32	3.17	4.56
2	CRBR	0.20	1.00E-02	.506	2				
2	SPCO	0.10	T	.253	1				
	ANN GRASS	0.30	0.01		3	0.14	0.05	0.47	0.67
5	BRTE	0.30	1.50E-02	.759	3				
	ANN FORBS	2.30	0.11		14	0.70	0.05	0.30	3.36
4	CHEN	0.30	1.50E-02	.759	3				
4	DEPI	0.30	1.50E-02	.759	3				
4	LARE	0.10	T	.253	1				
4	LEDE	0.60	3.00E-02	1.52	6				
4	PLSP	0.60	3.00E-02	1.52	6				
4	SAKA	0.30	1.50E-02	.759	3				
4	SIAL	0.10	T	.253	1				
	TOTAL		11.95	100.00		23.030			110.58

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	183.45
OPPO	40.08
Shrub Prod.	223.53
Total	334.11

PRECIPITATION DATA
RAIN GUAGE NO. 8 DEMER EXCL JULY 21/71
OCT. 15 TO APR. 15 = 2.42
APR. 15 TO JULY 1 = 4.32
JULY 1 TO SEPT. 1 = .37
SEPT. 1 TO OCT. 15 = 2.88
SEASON TOTAL = 9.99
LONG TERM AVERAGE = 8.30

**No utilization

2005 DUTCH NICK EXCL JULY 21/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*OPPO	3.50	.175		3				
	PER GRASS	51.80	2.59		19	20.68	1.09	0.40	99.30
3	BOGR	49.10	2.45	85.5	19	18.84	0.99	0.38	90.464
3	POSE	2.70	.135	4.70	5	1.84	0.37	0.68	8.8351
	PER FORBS	1.30	0.06		5	1.28	0.26	0.98	6.15
2	CRBR	1.30	6.50E-02	2.26	5				
	ANN FORBS	4.30	0.21		19	10.01	0.53	2.33	48.06
4	CHEN	1.50	7.50E-02	2.61	15				
4	GIPU	0.60	3.00E-02	1.05	6				
4	LARE	0.10	T	.174	1				
4	LEDE	0.80	4.00E-02	1.39	8				
4	PLPA	0.50	2.50E-02	.871	5				
4	PLSP	0.80	4.00E-02	1.39	8				
	TOTAL		3.04	100.00		31.970			153.51

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

EULA	.24
OPPO	50.59
Shrub Prod.	50.83
Total	204.34

PRECIPITATION DATA
RAIN GUAGE NO. 4 DUTCH NICK EXCL JULY 21/71
OCT. 15 TO APR. 15 = 1.34
APR. 15 TO JULY 1 = 2.77
JULY 1 TO SEPT. 1 = 1.89
SEPT. 1 TO OCT. 15 = 1.66
SEASON TOTAL = 7.66
LONG TERM AVERAGE = 6.94

**No utilization

```
          2005    DUTCH  NICK    EXCL    JULY   21/71  OUT     NATIVE

                               NUMBER PLOTS = 20
                                 PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.    TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-   PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION   FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL            BASE    SQ.FT.  OCCUR-  AREA
                PER-    AREA             20              RENCES
                CENT

  6    *OPPO     15.60 .780                  6
   PER GRASS     75.50  3.77                19     24.78    1.30  0.33 118.99
  3     BOGR     72.50 3.63        89.8     19     23.51    1.24  0.32  112.89
  3     POSE      3.00 .150        3.72      4      1.27    0.32  0.42  6.0982
   ANN FORBS      5.20  0.26                19     10.82    0.57  2.08   51.95
  4     CHEN      1.30 6.50E-02 1.61        13
  4     GIPU      0.80 4.00E-02 .991         8
  4     LARE      0.60 3.00E-02 .743         6
  4     LEDE      0.70 3.50E-02 .867         7
  4     MATA      0.10 T        .124         1
  4     PLPA      1.10 5.50E-02 1.36        11
  4     PLSP      0.60 3.00E-02 .743         6
    TOTAL              4.81    100.00              35.600                170.94

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARSP		.33
OPPO		55.15
	Shrub Prod.	55.48
	Total	226.42

```
PRECIPITATION DATA
 RAIN GUAGE NO. 4       DUTCH  NICK   EXCL   JULY   21/71
OCT. 15 TO APR. 15  =  1.34
APR. 15 TO JULY 1   =  2.77
JULY 1 TO SEPT. 1   =  1.89
SEPT. 1 TO OCT. 15  =  1.66
SEASON TOTAL        =  7.66
LONG TERM AVERAGE   =  6.94
```

**No utilization

```
          0404    FARSON EXCL           AUGUST 13/71  INSIDE NATIVE

                             NUMBER PLOTS = 20
                               PLOT SIZE 1X1
PLANT  PLANT  TOTAL  AVE.   PERCENT  ABS.   TOTAL  AVE.   WGT./  LBS**
CODE   NAME   TRANS  PER-   COMPO-   PLOT   WGT.   WGT.   UNIT   PER
              BASAL  CENT   SITION   FREQ.  GMS/20 /PLOT  BASAL  AC.
              AREA   BASAL           BASE   SQ.FT. OCCUR- AREA
              PER-   AREA            20            RENCES
              CENT

 6    *ARTR   248.50 12.4              12
 6    *ATCO     8.00 .400               1
 6    *CHVI    18.50 .925               9
 6    *PHHO    43.70 2.18              12
  PER GRASS    20.50  1.02              20     23.23    1.16  1.13 111.54
 3    AGSM      6.50 .325      30.8    20     13.75    0.69  2.12  66.023
 3    CAEL      0.40 2.00E-02  1.90     4      0.33    0.08  0.82  1.5846
 3    ORHY      5.10 .255      24.2     6      5.91    0.98  1.16  28.378
 3    POSE      4.00 .200      19.0     2      0.93    0.46  0.23  4.4656
 3    SIHY      3.50 .175      16.6     4      1.40    0.35  0.40  6.7224
 3    STCO      1.00 5.00E-02  4.74     2      0.91    0.45  0.91  4.3695
  PER FORBS     0.40  0.02              4      0.04    0.01  0.10    0.19
 2    EROV      0.40 2.00E-02  1.90     4
  ANN FORBS     0.20  0.01              2      0.02    0.01  0.10    0.10
 4    CHEN      0.20 1.00E-02  .948     2
    TOTAL           16.99    100.00           23.290                111.83

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARHO	1.82
ARTR	331.87
CHVI	18.82
EULA	.29
OPPO	2.88
PHHO	34.61
Shrub Prod.	390.29
Total	502.12

```
PRECIPITATION DATA
 RAIN GUAGE NO.  2     FARSON EXCL           AUGUST 13/71
OCT. 15 TO APR. 15 =  3.01
APR. 15 TO JULY 1  =  2.51
JULY 1 TO SEPT. 1  =   .97
SEPT. 1 TO OCT. 15 =   .82
SEASON TOTAL       =  7.31
LONG TERM AVERAGE  =  6.39
```

**No utilization

0404 FARSON EXCL AUGUST 13/71 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER- CENT	AVE. PER- CENT BASAL AREA	PERCENT COMPO- SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR- RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	121.10	6.05		13				
6	*CHVI	10.60	.530		8				
6	*PHHO	8.50	.425		7				
PER GRASS		13.30	0.66		18	16.18	0.90	1.22	77.69
3	AGSM	7.10	.355	50.0	16	9.37	0.59	1.32	44.992
3	CAEL	1.00	5.00E-02	7.04	2	0.60	0.30	0.60	2.8810
3	ORHY	3.60	.180	25.4	4	3.55	0.89	0.99	17.046
3	SIHY	0.60	3.00E-02	4.23	2	0.87	0.43	1.45	4.1775
3	STCO	1.00	5.00E-02	7.04	2	1.79	0.89	1.79	8.5950
PER FORBS		0.50	0.02		5	0.21	0.04	0.42	1.01
2	ALTE	0.10	T	.704	1				
2	ASPU	0.10	T	.704	1				
2	EROV	0.30	1.50E-02	2.11	3				
ANN FORBS		0.40	0.02		4	0.17	0.04	0.42	0.82
4	ARA	0.10	T	.704	1				
4	CHEN	0.30	1.50E-02	2.11	3				
	TOTAL		7.72	100.00		16.560			79.516

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARHO	13.58
ARTR	185.61
ATCO	1.87
CHVI	60.57
EROV	.43
EULA	.24
OPPO	2.64
PHHO	17.80
Shrub Prod.	282.74
Total	362.26

PRECIPITATION DATA
RAIN GUAGE NO. 2 FARSON EXCL AUGUST 13/71
OCT. 15 TO APR. 15 = 3.01
APR. 15 TO JULY 1 = 2.51
JULY 1 TO SEPT. 1 = .97
SEPT. 1 TO OCT. 15 = .82
SEASON TOTAL = 7.31
LONG TERM AVERAGE = 6.39

**NO utilization

1007 GRANIT MOUNT EXCL AUGUST 18/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PERCENT	AVE. PERCENT BASAL AREA	PERCENT COMPOSITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCURRENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	197.10	9.85		11				
6	*CHIV	10.00	.500		1				
6	*PHHO	36.10	1.80		9				
	PER GRASS	104.80	5.24		20	65.53	3.28	0.63	314.65
3	AGSM	14.20	.710	12.0	19	38.90	2.05	2.74	186.79
3	POFE	82.50	4.13	69.7	16	23.95	1.50	0.29	115.00
3	POSE	8.10	.405	6.84	11	2.68	0.24	0.33	12.869
	PER FORBS	12.10	0.60		12	7.78	0.65	0.64	37.36
2	ASMI	7.90	.395	6.67	9				
2	CAS	3.00	.150	2.53	1				
2	ERPU	1.20	6.00E-02	1.01	6				
	ANN FORBS	1.50	0.07		6	2.03	0.34	1.35	9.75
4	CRE	1.10	5.50E-02	.929	2				
4	TRI	0.40	2.00E-02	.338	4				
	TOTAL		18.08	100.00		75.340			361.76

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	298.66
CHVI	3.22
PHHO	53.81
Shrub Prod.	355.69
Total	717.45

PRECIPITATION DATA
RAIN GUAGE NO. 6 GRANIT MOUNT EXCL AUGUST 18/71
OCT. 15 TO APR. 15 = 1.95
APR. 15 TO JULY 1 = 4.47
JULY 1 TO SEPT. 1 = .77
SEPT. 1 TO OCT. 15 = 1.72
SEASON TOTAL = 8.91
LONG TERM AVERAGE = 8.75

**No utilization

```
        1007   GRANIT MOUNT   EXCL   AUGUST 18/71   OUT     NATIVE

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT   ABS.    TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-    PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION    FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL             BASE    SQ.FT.  OCCUR-  AREA
                PER-    AREA              20              RENCES
                CENT

 6    *ARTR    177.00 8.85                10
 6    *PHHO      7.00 .350                 6
  PER GRASS     56.40  2.82               20      40.35    2.02   0.72 193.75
 3    AGSM      12.80 .640       20.5     20      18.66    0.93   1.46  89.600
 3    KOCR       0.50 2.50E-02 .801        1       0.41    0.41   0.82  1.9687
 3    POFE      33.00 1.65       52.9     17      17.28    1.02   0.52  82.973
 3    POSE       8.60 .430       13.8      8       2.64    0.33   0.31  12.676
 3    SIHY       0.50 2.50E-02 .801        1       0.45    0.45   0.90  2.1608
 3    STCO       1.00 5.00E-02 1.60        1       0.91    0.91   0.91  4.3695
  PER FORBS      5.60  0.28               10       4.33    0.43   0.77  20.79
 2    ASMI       3.10 .155       4.97      6
 2    ERPU       2.50 .125       4.01      8
  ANN FORBS      0.40  0.02                4       0.16    0.04   0.40   0.77
 4    TRI        0.40 2.00E-02 .641        4
      TOTAL          12.32      100.00            44.840                215.31

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	335.18
CHVI	2.73
PHHO	59.23
Shrub Prod.	397.14
Total	612.45

```
PRECIPITATION DATA
 RAIN GUAGE NO. 6      GRANIT MOUNT  EXCL   AUGUST 18/71
OCT. 15 TO APR. 15 = 1.95
APR. 15 TO JULY 1  = 4.47
JULY 1 TO SEPT. 1  =  .77
SEPT. 1 TO OCT. 15 = 1.72
SEASON TOTAL       = 8.91
LONG TERM AVERAGE  = 8.75
```

**No utilization

```
          1007    GRANIT  MOUNT   EXCL    AUGUST 18/71   IN       SPRAY

                              NUMBER PLOTS = 20
                                 PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.     PERCENT   ABS.     TOTAL    AVE.     WGT./   LBS**
CODE    NAME     TRANS   PER-     COMPO-    PLOT     WGT.     WGT.     UNIT    PER
                 BASAL   CENT     SITION    FREQ.    GMS/20   /PLOT    BASAL   AC.
                 AREA    BASAL              BASE     SQ.FT.   OCCUR-   AREA
                 PER-    AREA               20                RENCES
                 CENT

  6    *PHHO       0.10 T                     1
   PER GRASS     110.30  5.51                20     145.45     7.27   1.32  698.41
  3     AGSM      23.20 1.16        20.7     20      60.47     3.02   2.61   290.36
  3     POFE      77.50 3.88        69.1     18      77.86     4.33   1.00   373.86
  3     POSE       9.10 .455        8.12      9       6.06     0.67   0.67   29.098
  3     SIHY       0.50 2.50E-02 .446         1       1.06     1.06   2.12   5.0898
   PER FORBS       1.40  0.07                 5       1.30     0.26   0.93     6.24
  2     ASMI       0.10 T           8.92E-02  1
  2     ERPU       1.30 6.50E-02 1.16         5
   ANN FORBS       0.40  0.02                 4       1.26     0.31   3.15     6.05
  4     ARHO2      0.20 1.00E-02 .178         2
  4     TRI        0.20 1.00E-02 .178         2
      TOTAL             5.61     100.00             148.01                   710.70

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR		105.40
CHVI		15.31
PHHO		2.73
	Shrub Prod.	123.44
	Total	834.14

```
PRECIPITATION DATA
 RAIN GUAGE NO. 6      GRANIT MOUNT  EXCL    AUGUST 18/71
OCT. 15 TO APR. 15 =  1.95
APR. 15 TO JULY 1  =  4.47
JULY 1 TO SEPT. 1  =   .77
SEPT. 1 TO OCT. 15 =  1.72
SEASON TOTAL       =  8.91
LONG TERM AVERAGE  =  8.75
```

**No utilization

```
        1007    GRANIT MOUNT   EXCL    AUGUST 18/71   OUT     SPRAY

                           NUMBER PLOTS = 20
                             PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.    PERCENT  ABS.    TOTAL   AVE.    WGT./  LBS**
CODE   NAME    TRANS  PER-    COMPO-   PLOT    WGT.    WGT.    UNIT   PER
               BASAL  CENT    SITION   FREQ.   GMS/20  /PLOT   BASAL  AC.
               AREA   BASAL            BASE    SQ.FT.  OCCUR-  AREA
               PER-   AREA             20              RENCES
               CENT

  6    *ARTR    64.60 3.23                6
  6    *CHVI    25.20 1.26                7
  6    *PHHO     4.50 .225                4
   PER GRASS    61.50  3.07              20     53.10   2.65   0.86 254.97
  3     AGSM    14.90 .745        22.1   20     32.18   1.61   2.16  154.52
  3     POSE    40.50 2.02        60.2   18     15.39   0.85   0.38  73.898
  3     SIHY     6.10 .305        9.06    6      5.53   0.92   0.91  26.553
   PER FORBS     5.80  0.29               8      6.15   0.77   1.06   29.53
  2     ANRO     3.00 .150        4.46    1
  2     ASMI     1.70 8.50E-02 2.53       5
  2     AST      1.00 5.00E-02 1.49       1
  2     ERPU     0.10 T           .149    1
      TOTAL           8.08      100.00          59.250                 284.50

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

      ARTR                                                             75.16
      CHVI                                                              7.96
      PHHO                                                              5.18
                                                      Shrub Prod.      88.30
                                                            Total     372.80


PRECIPITATION DATA
 RAIN GUAGE NO.  6    GRANIT MOUNT   EXCL    AUGUST 18/71
OCT. 15 TO APR. 15 =  1.95
APR. 15 TO JULY 1  =  4.47
JULY 1 TO SEPT. 1  =   .77
SEPT. 1 TO OCT. 15 =  1.72
SEASON TOTAL       =  8.91
LONG TERM AVERAGE  =  8.75
```

**No utilization

```
         0901   HALCGE PASTUR EXCL.1 JULY   12/71  INSIDE NATIVE

                             NUMBER OF PLOTS
                     COVER = 200, PRODUCTION = 20
                      PLOT SIZE 1 FT. X 10 FT.
PLANT  PLANT  TOTAL  AVE.    PERCENT   ABS.    TOTAL   AVE.    WGT./  LBS **
CODE   NAME   TRANS  PER-    COMPO-    PLOT    WGT.    WGT.    UNIT   PER
              BASAL  CENT    SITION    FREQ.   GMS/    /PLOT   BASAL  AC.
              AREA   BASAL             BASE    200     OCCUR-  AREA
              PER-   AREA              200     SQ.FT.  RENCES
              CENT

 6   *ARTR    464.0  2.32                   8
 6   *OPPO      4.0  2.00E-02               2
 1   ATNU    3311.3  16.6      99.2       116   778.05   6.71  0.23  373.60
  PER GRASS     2.7  1.35E-02               2     0.42   0.21  0.16  .20167
 3   POSE       2.1  1.05E-02 6.29E-02      2     0.29   0.14  0.14  .13925
 3   SIHY       0.6  T        1.80E-02      2     0.13   0.06  0.22  6.2422E-02
  PER FORBS   20.80  0.10                  20     2.80   0.14  0.13   1.34
 2   ALTE      19.9  9.95E-02 .596         20
 2   POL        0.9  T        2.70E-02      9
  ANN FORBS    3.00  0.01                  13     3.83   0.29  1.28   1.84
 4   DEPI       1.1  T        3.30E-02      7
 4   HAGL       0.1  T        T             1
 4   LARE       0.1  T        T             1
 4   LEDE       0.4  T        1.20E-02      4
 4   SAKA       1.3  T        3.89E-02     13
     TOTAL          19.0      100.00              785.100              376.981

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
      ARSP                                                              5.66
      ARTR                                                              1.30
      OPPO                                                             16.66
                                                         Shrub Prod.   23.62
                                                               Total  400.601


PRECIPITATION DATA
 RAIN GUAGE NO. 24    HALCGE PASTUR EXCL.1 JULY   12/71
OCT. 15 TO APR. 15 = 1.03
APR. 15 TO JULY 1  = 3.23
JULY 1 TO SEPT. 1  =  .88
SEPT. 1 TO OCT. 15 = 1.40
SEASON TOTAL       = 6.54
LONG TERM AVERAGE  = 5.49
```

**No utilization

```
          0905    HALOGE PASTUR EXCL.2 JULY   13/71  INSIDE NATIVE

                          NUMBER OF PLOTS
                      COVER = 200, PRODUCTION = 20
                       PLOT SIZE 1 FT. X 10 FT.
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.   TOTAL  AVE.   WGT./  LBS**
CODE   NAME    TRANS  PER-   COMPO-   PLOT   WGT.   WGT.   UNIT   PER
               BASAL  CENT   SITION   FREQ.  GMS/   /PLOT  BASAL  AC.
               AREA   BASAL           BASE   200    OCCUR- AREA
               PER-   AREA            200    SQ.FT. RENCES
               CENT

  6  *ARSP      0.5  T                  1
  6  *OPPO      5.5  2.75E-02           3
  1  ATNU    2798.1  14.0      83.5   157    504.12   3.21  0.18  242.06
   PER GRASS  537.1  2.69              94    410.91   4.37  0.77  197.31
  3  POSE     121.1  .605      3.62    34     70.15   2.06  0.58  33.684
  3  SIHY     416.0  2.08      12.4    94    340.76   3.63  0.82  163.62
   ANN FORBS   14.10  0.07             55     16.27   0.30  1.15    7.81
  4  ARA        0.5  T        1.49E-02  1
  4  DEPI       1.7  T        5.08E-02  8
  4  LARE       2.0  T        5.97E-02 16
  4  LEDE       7.1  3.55E-02 .212     55
  4  MATA       2.7  1.35E-02 8.06E-02 19
  4  SAKA       0.1  T        T         1
     TOTAL          16.8     100.00        931.300                447.182

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

```
      ARSP                                                        1.30
      OPPO                                                         .43
                                                 Shrub Prod.      1.73
                                                       Total    448.912
```

```
PRECIPITATION DATA
 RAIN GUAGE NO. 24     HALOGE PASTUR EXCL.2 JULY   13/71
OCT. 15 TO APR. 15 = 1.03
APR. 15 TO JULY 1  = 3.23
JULY 1 TO SEPT. 1  =  .88
SEPT. 1 TO OCT. 15 = 1.40
SEASON TOTAL       = 6.54
LONG TERM AVERAGE  = 5.49
```

**No utilization

```
        0903   HALOGE PASTUR EXCL.3 JULY   14/71  INSIDE NATIVE

                         NUMBER OF PLOTS
                  COVER = 200, PRODUCTION = 20
                   PLOT SIZE 1 FT. X 10 FT.
PLANT  PLANT   TOTAL  AVE.    PERCENT  ABS.   TOTAL   AVE.    WGT./   LBS**
CODE   NAME    TRANS  PER-    COMPO-   PLOT   WGT.    WGT.    UNIT    PER
               BASAL  CENT    SITION   FREQ.  GMS/    /PLOT   BASAL   AC.
               AREA   BASAL            BASE   200     OCCUR-  AREA
               PER-   AREA             200    SQ.FT.  RENCES
               CENT

 6   *ARSP      26.5  .132                 6
 6   *OPPO      10.0  5.00E-02             6
 1   ATNU     3619.6  18.1     96.3      151  601.07    3.98   0.17   288.62
  PER GRASS  119.4   .597                 56  130.79    2.34   1.10   62.801
 3   POSE       17.6  8.80E-02 .468        8   39.54    4.94   2.25   18.986
 3   SIHY      101.8  .509     2.71       56   91.25    1.63   0.90   43.815
  PER FORBS     3.00  0.01                30    4.54    0.15   1.51    2.18
 2   ALTE       3.0   1.50E-02 7.98E-02   30
  ANN FORBS    18.10  0.09                68   29.28    0.43   1.62   14.06
 4   ARA        0.6   T        1.60E-02    6
 4   DEPI       1.4   T        3.72E-02   14
 4   LARE       2.1   1.05E-02 5.58E-02   21
 4   LEDE       7.6   3.80E-02 .202       68
 4   MATA       6.4   3.20E-02 .170       48
     TOTAL            19.0     100.00         765.680                367.656

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

OPPO 4.42

Shrub Prod. 4.42

Total 372.076

```
PRECIPITATION DATA
 RAIN GUAGE NO. 24    HALOGE PASTUR EXCL.3 JULY   14/71
OCT. 15 TO APR. 15 =  1.03
APR. 15 TO JULY 1  =  3.23
JULY 1 TO SEPT. 1  =   .88
SEPT. 1 TO OCT. 15 =  1.40
SEASON TOTAL       =  6.54
LONG TERM AVERAGE  =  5.49
```

**No utilization

```
        0904    HALOGE PASTUR NO.1    JULY   13/71  OUT    NATIVE

                           NUMBER OF PLOTS
                    COVER = 200, PRODUCTION = 20
                     PLOT SIZE 1 FT. X 10 FT.
PLANT  PLANT   TOTAL   AVE.    PERCENT   ABS.    TOTAL   AVE.    WGT./   LBS**
CODE   NAME    TRANS   PER-    COMPO-    PLOT    WGT.    WGT.    UNIT    PER
               BASAL   CENT    SITION    FREQ.   GMS/    /PLOT   BASAL   AC.
               AREA    BASAL             BASE    200     OCCUR-  AREA
               PER-    AREA              200     SQ.FT.  RENCES
               CENT

 6   *ARSP       0.1   T                   1
 1   ATNU     4268.5   21.3     99.9     165   838.68    5.08    0.20   402.71
  PER GRASS      1.0   5.00E-03            1     0.40    0.40    0.40   .19207
 3   SIHY        1.0   T        2.34E-02   1     0.40    0.40    0.40   .19207
  PER FORBS      0.10  0.00                1     0.02    0.02    0.20    0.01
 2   ALTE        0.1   T        T          1
  ANN FORBS      5.20  0.03               23     6.37    0.28    1.22    3.06
 4   DEPI        2.1   1.05E-02 4.91E-02  21
 4   HAGL        0.1   T        T          1
 4   LARE        2.3   1.15E-02 5.38E-02  23
 4   LEDE        0.4   T        T          4
 4   SAKA        0.3   T        T          3
     TOTAL            21.4      100.00        845.470                   405.969

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE
```

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARSP	.14
OPPO	.77
Shrub Prod.	.91
Total	406.879

```
PRECIPITATION DATA
 RAIN GUAGE NO. 24     HALOGE PASTUR NO.1   JULY   13/71
OCT. 15 TO APR. 15 = 1.03
APR. 15 TO JULY 1  = 3.23
JULY 1 TO SEPT. 1  =  .88
SEPT. 1 TO OCT. 15 = 1.40
SEASON TOTAL       = 6.54
LONG TERM AVERAGE  = 5.49
```

**No utilization

0905 HALOGE PASTUR NO.2 JULY 13/71 OUT NATIVE

NUMBER OF PLOTS
COVER = 200, PRODUCTION = 20
PLOT SIZE 1 FT. X 10 FT.

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 200	TOTAL WGT. GMS/ 200 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARSP	23.0	.115		3				
6	*OPPO	25.0	.125		5				
1	ATNU	4703.0	23.5	99.3	121	1381.61	11.42	0.29	663.41
	PER GRASS	22.5	.112		16	15.70	0.98	0.70	7.5387
3	POSE	3.0	1.50E-02	6.33E-02	1	2.48	2.48	0.83	1.1908
3	SIHY	19.5	9.75E-02	.412	16	13.22	0.83	0.68	6.3478
	PER FORBS	3.40	0.02		34	3.70	0.11	1.09	1.78
2	ALTE	3.4	1.70E-02	7.18E-02	34				
	ANN FORBS	8.50	0.04		34	9.01	0.26	1.06	4.33
4	DEPI	1.4	T	2.96E-02	14				
4	HAGL	4.2	2.10E-02	8.87E-02	34				
4	LARE	1.1	T	2.32E-02	11				
4	LEDE	0.2	T	T	2				
4	SAKA	1.6	T	3.38E-02	12				
	TOTAL		23.9	100.00		1410.02			677.048

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARSP	.67
OPPO	.24
Shrub Prod.	.91
Total	677.958

PRECIPITATION DATA
RAIN GJAGE NO. 24 HALOGE PASTUR NO.2 JULY 13/71
OCT. 15 TO APR. 15 = 1.03
APR. 15 TO JULY 1 = 3.23
JULY 1 TO SEPT. 1 = .88
SEPT. 1 TO OCT. 15 = 1.40
SEASON TOTAL = 6.54
LONG TERM AVERAGE = 5.49

**No utilization

```
      0907    HALOGE PASTUR NO.4A  JULY   13/71  OUT    NATIVE

                            NUMBER OF PLOTS
                      COVER = 20C, PRODUCTION = 20
                       PLOT SIZE 1 FT. X 10 FT.
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.   TOTAL  AVE.   WGT./  LBS**
CODE   NAME    TRANS  PER-   COMPO-   PLOT   WGT.   WGT.   UNIT   PER
               BASAL  CENT   SITION   FREQ.  GMS/   /PLOT  BASAL  AC.
               AREA   BASAL           BASE   200    OCCUR- AREA
               PER-   AREA            200    SQ.FT. RENCES
               CENT

 6  *OPPO      36.0   .180                4
 1  ATNU     3884.8   19.4     98.8     161  668.51   4.15  0.17  321.00
  PER GRASS     5.0   2.50E-02            8    5.45   0.68  1.09  2.6169
 3  SIHY        5.0   2.50E-02 .127       8    5.45   0.68  1.09  2.6169
  PER FORBS     0.60  0.00                6    0.51   0.08  0.85   0.24
 2  ALTE        0.6   T          1.53E-02 6
  ANN FORBS    41.60  0.21              120   89.32   0.74  2.15  42.89
 4  DEPI        3.4   1.70E-02 8.65E-02 26
 4  LARE        7.1   3.55E-02 .181      55
 4  LEDE       25.7   .128     .654     120
 4  MATA        5.4   2.70E-02 .137      34
    TOTAL            19.8     100.00         763.790             366.749

      * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

OPPO

	1.30
Shrub Prod.	1.30
Total	368.049

```
PRECIPITATION DATA
 RAIN GUAGE NO. 24    HALOGE PASTUR NO.4A  JULY   13/71
OCT. 15 TO APR. 15 = 1.03
APR. 15 TO JULY 1  = 3.23
JULY 1 TO SEPT. 1  =  .88
SEPT. 1 TO OCT. 15 = 1.40
SEASON TOTAL       = 6.54
LONG TERM AVERAGE  = 5.49
```

**No utilization

```
          0908   HALCGE PASTUR NO.4B  JULY   13/71  OUT    NATIVE

                          NUMBER OF PLOTS
                     CCVER = 200, PRODUCTION = 20
                      PLOT SIZE 1 FT. X 10 FT.
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.   TOTAL   AVE.    WGT./  LBS**
CODE   NAME    TRANS  PER-   COMPC-   PLOT   WGT.    WGT.    UNIT   PER
               BASAL  CENT   SITION   FREQ.  GMS/    /PLOT   BASAL  AC.
               AREA   BASAL           BASE   200     OCCUR-  AREA
               PER-   AREA            2C0    SQ.FT.  RENCES
               CENT

 6  *ARSP      33.8  .169                20
 6  *OPPO      37.5  .188                 9
 1  ATNU     3355.9  16.8      99.4     170  623.11   3.67   0.19  299.20
  PER GRASS     2.2  1.10E-02             5    1.91   0.38   0.87  .91712
 3  SIHY        2.2  1.10E-02 6.51E-02    5    1.91   0.38   0.87  .91712
  PER FORBS    0.60  C.00                 6    0.85   0.14   1.42   0.41
 2  ALTE        0.6  T        1.78E-02    6
  ANN FCRBS   19.00  C.09                63   34.70   0.55   1.83  16.66
 4  DEPI        0.6  T        1.78E-02    6
 4  HAGL        0.1  T        T           1
 4  LARE        4.8  2.40E-02 .142       44
 4  LEDE        8.7  4.35E-02 .258       63
 4  MATA        4.1  2.05E-02 .121       21
 4  SAKA        0.4  T        1.18E-02    4
 4  UMB         0.3  T        T           3
    TOTAL            17.2     100.00        660.570                317.185

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES CF SHRUBS AND WOODY MAT FORM PLANTS
```

ARSP		1.82
OPPO		1.30
	Shrub Prod.	3.12
	Total	320.30

```
PRECIPITATION DATA
 RAIN GUAGE NO. 24     HALCGE PASTUR NC.4B  JULY   13/71
OCT. 15 TO APR. 15 = 1.03
APR. 15 TO JULY 1  = 3.23
JULY 1 TO SEPT. 1  =  .88
SEPT. 1 TO OCT. 15 = 1.40
SEASCN TOTAL       = 6.54
LONG TERM AVERAGE  = 5.49
```

**No utilization

```
          0909   HALCGE PASTUR NO.5   JULY   14/71  OUT    NATIVE

                            NUMBER OF PLOTS
                     COVER = 200, PRODUCTION = 20
                       PLOT SIZE 1 FT. X 10 FT.
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.   TOTAL  AVE.    WGT./  LBS**
CODE   NAME    TRANS  PER-   COMPO-   PLOT   WGT.   WGT.    UNIT   PER
               BASAL  CENT   SITION   FREQ.  GMS/   /PLOT   BASAL  AC.
               AREA   BASAL           BASE   200    OCCUR-  AREA
               PER-   AREA            200    SQ.FT. RENCES
               CENT

  6  *ARSP      0.1   T                   1     .
  1  ATNU    2659.7   13.3      94.9    157   408.51   2.60   0.15  196.15
   PER GRASS  133.3   .666               80   154.18   1.93   1.16  74.033
  3  SIHY     133.3   .666      4.76     80   154.18   1.93   1.16  74.033
   PER FORBS   0.30   0.00                3     0.25   0.08   0.83    0.12
  2  ALTE      0.3    T       1.07E-02    3
   ANN FORBS   9.30   0.05               36     7.79   0.22   0.84    3.74
  4  DEPI      0.9    T       3.21E-02    9
  4  HAGL      0.1    T       T           1
  4  LARE      3.6   1.80E-02 .128       36
  4  LEDE      3.8   1.90E-02 .136       30
  4  MATA      0.5    T       1.78E-02    5
  4  SAKA      0.4    T       1.43E-02    4
     TOTAL           14.0     100.00        570.730                274.047

     * NOT COMPUTED IN PERCENT COMPOSITION
     T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARSP	.10
OPPO	.24
Shrub Prod.	.34
Total	274.387

```
PRECIPITATION DATA
 RAIN GUAGE NO. 24     HALCGE PASTUR NO.5   JULY   14/71
OCT. 15 TO APR. 15  = 1.03
APR. 15 TO JULY 1   = 3.23
JULY 1 TO SEPT. 1   =  .88
SEPT. 1 TO OCT. 15  = 1.40
SEASON TOTAL        = 6.54
LONG TERM AVERAGE   = 5.49
```

**No utilization

```
        0910   HALOGE PASTUR NO.6   JULY   14/71  OUT    NATIVE

                         NUMBER OF PLOTS
                   COVER = 200, PRODUCTION = 20
                    PLOT SIZE 1 FT. X 10 FT.
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.   TOTAL   AVE.    WGT./  LBS**
CODE   NAME    TRANS  PER-   COMPO-   PLOT   WGT.    WGT.    UNIT   PER
               BASAL  CENT   SITION   FREQ.  GMS/    /PLOT   BASAL  AC.
               AREA   BASAL           BASE   200     OCCUR-  AREA
               PER-   AREA            200    SQ.FT.  RENCES
               CENT

 6   *OPPO      6.0  3.00E-02            5     ,
 1   ATNU    2612.5  13.1      93.4    104   481.91    4.63   0.18   231.40
  PER GRASS   165.4  .827               74   172.61    2.33   1.04   82.882
 3   POSE       3.2  1.60E-02 .114       8     1.35    0.17   0.42   .64823
 3   SIHY     162.2  .811      5.80     74   171.26    2.31   1.06   82.234
  PER FORBS    1.60  0.01               16     1.59    0.10   0.99    0.76
 2   ALTE       1.6  T         5.72E-02 16
  ANN FORBS   16.30  0.08               65    17.22    0.26   1.06    8.27
 4   DEPI       0.3  T         1.07E-02  3
 4   HAGL       0.3  T         1.07E-02  3
 4   LARE       3.6  1.80E-02 .129      32
 4   LEDE       2.0  T         7.15E-02 20
 4   MATA       9.7  4.85E-02 .347      65
 4   SAKA       0.4  T         1.43E-02  4
     TOTAL            14.0    100.00        673.330                 323.312

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

       ARSP                                                           .48
       OPPO                                                           .24
                                                   Shrub Prod.        .72
                                                         Total    324.032

PRECIPITATION DATA
 RAIN GUAGE NO. 24    HALOGE PASTUR NO.6   JULY   14/71
OCT. 15 TO APR. 15 = 1.03
APR. 15 TO JULY 1  = 3.23
JULY 1 TO SEPT. 1  =  .88
SEPT. 1 TO OCT. 15 = 1.40
SEASON TOTAL       = 6.54
LONG TERM AVERAGE  = 5.49
```

**No utilization

```
          0911    HALCGE PASTUR NO.7A  JULY   14/71  OUT    NATIVE

                              NUMBER OF PLOTS
                        COVER = 200, PRODUCTION = 20
                         PLOT SIZE 1 FT. X 10 FT.
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.    TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-   PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION   FREQ.   GMS/    /PLOT   BASAL   AC.
                AREA    BASAL            BASE    200     OCCUR-  AREA
                PER-    AREA             200     SQ.FT.  RENCES
                CENT

  6   *OPPO      32.1   .160                 8
  1   ATNU     4183.0   20.9       99.7    152   823.73    5.42   0.20   395.53
   PER GRASS      0.2   1.00E-03             2     0.21    0.10   1.05   .10084
  3   SIHY        0.2   T          T         2     0.21    0.10   1.05   .10084
   PER FORBS      1.40   0.01               14     1.22    0.09   0.87     0.59
  2   ALTE        1.4   T          3.34E-02 14
   ANN FORBS      8.90   0.04               27     9.80    0.36   1.10     4.71
  4   DEPI        1.2   T          2.86E-02 12
  4   LARE        2.7   1.35E-02 6.44E-02 27
  4   LEDE        1.6   T          3.82E-02 16
  4   MATA        3.4   1.70E-02 8.11E-02 18
      TOTAL            21.1      100.00        834.960                  400.922

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
      OPPO
                                                                         5.18
                                                         Shrub Prod.     5.18
                                                               Total   406.102

PRECIPITATION DATA
 RAIN GUAGE NO.  24    HALCGE PASTUR NO.7A  JULY   14/71
OCT. 15 TO APR. 15  = 1.03
APR. 15 TO JULY 1   = 3.23
JULY 1 TO SEPT. 1   =  .88
SEPT. 1 TO OCT. 15  = 1.40
SEASON TOTAL        = 6.54
LONG TERM AVERAGE   = 5.49
```

**No utilization

0912 HALOGE PASTUR NO.7B JULY 14/71 OUT NATIVE

NUMBER OF PLOTS
COVER = 200, PRODUCTION = 20
PLOT SIZE 1 FT. X 10 FT.

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 200	TOTAL WGT. GMS/ 200 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARSP	70.1	.350		18				
6	*OPPO	32.1	.160		7				
1	ATNU	2401.6	12.0	91.7	127	321.22	2.53	0.13	154.24
	PER GRASS	188.0	.940		89	201.43	2.26	1.07	96.721
3	POSE	9.3	4.65E-02	.355	17	3.07	0.18	0.33	1.4741
3	SIHY	178.7	.893	6.83	89	198.36	2.23	1.11	95.246
	PER FORBS	13.40	0.07		45	21.14	0.47	1.58	10.15
2	ALTE	3.1	1.55E-02	.118	31				
2	AST	0.8	T	3.06E-02	8				
2	CECA	0.2	T	T	2				
2	SPCO	9.3	4.65E-02	.355	45				
	ANN FORBS	15.00	0.07		60	27.28	0.45	1.82	13.10
4	ARA	0.1	T	T	1				
4	DEPI	1.1	T	4.20E-02	11				
4	LARE	1.3	T	4.97E-02	13				
4	LEDE	7.2	3.60E-02	.275	60				
4	MATA	3.6	1.80E-02	.138	28				
4	PLPA	0.2	T	T	2				
4	SAKA	1.5	T	5.73E-02	15				
	TOTAL		13.6	100.00		571.070			274.210

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARSP	1.25
OPPO	1.29
Shrub Prod.	2.54
Total	276.750

PRECIPITATION DATA
RAIN GUAGE NO. 24 HALOGE PASTUR NO.7B JULY 14/71
OCT. 15 TO APR. 15 = 1.03
APR. 15 TO JULY 1 = 3.23
JULY 1 TO SEPT. 1 = .88
SEPT. 1 TO OCT. 15 = 1.40
SEASON TOTAL = 6.54
LONG TERM AVERAGE = 5.49

**No utilization

```
        0913    HORSE   CREEK   EXCL    AUGUST 4/71    IN     AGSP

                                NUMBER PLOTS = 20
                                  PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT   ABS.    TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-    PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION    FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL             BASE    SQ.FT.  OCCUR-  AREA
                PER-    AREA              20              RENCES
                CENT

  6    *ARTR    66.00  3.30                  5
  6    *GUSA     0.50  2.50E-02              1
  6    *PHHO     1.00  5.00E-02              2
   PER GRASS   109.10   5.45                20     94.25    4.71   0.86  452.56
  3    AGSM      2.10  .105       1.92       9      3.27    0.36   1.56   15.702
  3    AGSP    106.00  5.30      97.1       17     90.20    5.31   0.85   433.11
  3    POSE      1.00  5.00E-02 .916         2      0.78    0.39   0.78   3.7453
   ANN FORBS     0.10   0.00                 1      0.01    0.01   0.10    0.05
  4    DEPI      0.10  T          9.16E-02   1
      TOTAL             8.83     100.00            94.260                 452.61

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	79.63
GUSA	3.31
OPPO	3.98
PHHO	2.21
Shrub Prod.	89.13
Total	541.74

```
PRECIPITATION DATA
 RAIN GUAGE NO. 12     HORSE  CREEK  EXCL   AUGUST 4/71
OCT. 15 TO APR. 15 =  3.54
APR. 15 TO JULY 1  =  2.55
JULY 1 TO SEPT. 1  =   .89
SEPT. 1 TO OCT. 15 =  2.65
SEASON TOTAL       =  8.63
LONG TERM AVERAGE  = 11.58
```

**No utilization

```
       0913   HORSE  CREEK  EXCL   AUGUST 4/71   OUT    AGSP

                           NUMBER PLOTS = 20
                             PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.   TOTAL   AVE.    WGT./   LBS**
CODE   NAME    TRANS  PER-   COMPO-   PLOT   WGT.    WGT.    UNIT    PER
               BASAL  CENT   SITION   FREQ.  GMS/20  /PLOT   BASAL   AC.
               AREA   BASAL           BASE   SQ.FT.  OCCUR-  AREA
               PER-   AREA            20             RENCES
               CENT

  6    *ARTR   51.50 2.57              6
  6    *GUSA   11.30 .565             17
  6    *OPPO    7.00 .350              2
  6    *PHHO    5.50 .275              6
   PER GRASS   29.70  1.48            17     21.53    1.27   0.72  103.38
  3    AGSM     0.10 T         .317    1      0.50    0.50   5.00   2.4008
  3    AGSP    18.60 .930      59.0   13     17.78    1.37   0.96   85.374
  3    ARLO     8.00 .400      25.4    1      2.59    2.59   0.32   12.436
  3    POSE     3.00 .150      9.52    6      0.66    0.11   0.22   3.1691
   PER FORBS    1.80  0.09            10      5.95    0.59   3.31   28.57
  2    ANNE     0.10 T         .317    1
  2    MAGL     0.60 3.00E-02 1.90     2
  2    PEN      0.60 3.00E-02 1.90     6
  2    SPCO     0.50 2.50E-02 1.59     5
     TOTAL            5.34    100.00         27.480                         131.95

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR		80.78
GUSA		40.18
OPPO		8.30
PHHO		4.32
	Shrub Prod.	133.58
	Total	265.53

```
PRECIPITATION DATA
 RAIN GUAGE NO. 12    HORSE  CREEK  EXCL   AUGUST 4/71
OCT. 15 TO APR. 15 =  3.54
APR. 15 TO JULY 1  =  2.55
JULY 1 TO SEPT. 1  =   .89
SEPT. 1 TO OCT. 15 =  2.65
SEASON TOTAL       =  8.63
LONG TERM AVERAGE  = 11.58
```

**Production adjusted for utilization

	159.27
	133.58
Total Adjusted	292.85

0913 HORSE CREEK EXCL AUGUST 4/71 IN AGSM

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PERCENT	AVE. PERCENT BASAL AREA	PERCENT COMPOSITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCURRENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	154.00	7.70		6				
6	*GUSA	2.00	.100		1				
	PER GRASS	25.60	1.28		20	39.95	2.00	1.56	191.83
3	AGSM	17.40	.870	49.0	20	33.79	1.69	1.94	162.25
3	POSE	8.20	.410	23.1	12	6.16	0.51	0.75	29.578
	ANN GRASS	9.80	0.49		10	4.72	0.47	0.48	22.66
5	BRCO	0.30	1.50E-02	.845	3				
5	BRTE	9.50	.475	26.8	7				
	ANN FORBS	0.10	0.00		1	0.01	0.01	0.10	0.05
4	LEDE	0.10	T	.282	1				
	TOTAL		9.57	100.00		44.680			214.54

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	94.75
GUSA	2.69
OPPO	1.06
PHHO	.19
Shrub Prod.	98.69
Total	313.23

PRECIPITATION DATA
RAIN GUAGE NO. 12 HORSE CREEK EXCL AUGUST 4/71
OCT. 15 TO APR. 15 = 3.54
APR. 15 TO JULY 1 = 2.55
JULY 1 TO SEPT. 1 = .89
SEPT. 1 TO OCT. 15 = 2.65
SEASON TOTAL = 8.63
LONG TERM AVERAGE = 11.58

**No utilization

```
     0913   HORSE  CREEK  EXCL   AUGUST 4/71   OUT    AGSM

                          NUMBER PLOTS = 20
                             PLOT SIZE 1X1
PLANT  PLANT  TOTAL  AVE.   PERCENT  ABS.   TOTAL  AVE.    WGT./  LBS**
CODE   NAME   TRANS  PER-   COMPO-   PLOT   WGT.   WGT.    UNIT   PER
              BASAL  CENT   SITION   FREQ.  GMS/20 /PLOT   BASAL  AC.
              AREA   BASAL           BASE   SQ.FT. OCCUR-  AREA
              PER-   AREA            20            RENCES
              CENT

  6   *ARTR   36.20 1.81               5
  6   *PHHO    2.30 .115               5
  PER GRASS   13.10  0.65             20     17.99   0.90  1.37   86.38
  3    AGSM    8.00 .400     59.3     19     12.30   0.65  1.54   59.061
  3    AGSP    2.00 .100     14.8      2      4.24   2.12  2.12   20.359
  3    POSE    3.10 .155     23.0      9      1.45   0.16  0.47   6.9625
  PER FORBS    0.40  0.02              4      0.72   0.18  1.80    3.46
  2    ERPU    0.10 T        .741      1
  2    SPCO    0.30 1.50E-02 2.22      3
     TOTAL          2.60    100.00           18.710                89.840

     * NOT COMPUTED IN PERCENT COMPOSITION
     T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	118.75
GUSA	10.56
OPPO	1.39
PHHO	9.26
Shrub Prod.	139.96
Total	229.80

```
PRECIPITATION DATA
 RAIN GUAGE NO. 12   HORSE  CREEK  EXCL   AUGUST 4/71
OCT. 15 TO APR. 15  = 3.54
APR. 15 TO JULY 1   = 2.55
JULY 1 TO SEPT. 1   =  .89
SEPT. 1 TO OCT. 15  = 2.65
SEASON TOTAL        = 8.63
LONG TERM AVERAGE   =11.58
```

**Production adjusted for utilization

	121.28
	139.96
Total adjusted	261.24

```
        0914    KANE    DEER    EXCL    AUGUST 17/71   INSIDE NATIVE

                              NUMBER PLOTS = 20
                                 PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.    TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-   PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION   FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL            BASE    SQ.FT.  OCCUR-  AREA
                PER-    AREA             20              RENCES
                CENT

 6    *ARNC       0.50 2.50E-02            1
 6    *GUSA       0.60 3.00E-02            2
 6    *JUOS     668.00 33.4                8
  PER GRASS       3.30  0.16               5      7.69    1.54   2.33   36.93
 3    AGGR        3.10 .155       91.2     3      6.07    2.02   1.96   29.146
 3    AGSP        0.20 1.00E-02 5.88       2      1.62    0.81   8.10   7.7787
  PER FORBS       0.10  0.00               1      0.01    0.01   0.10    0.05
 2    HYAC        0.10 T           2.94    1
    TOTAL              33.62     100.00          7.7000                 36.973

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

Shrub data not taken

```
PRECIPITATION DATA
 RAIN GUAGE NO. 21     KANE    DEER    EXCL    AUGUST 17/71
OCT. 15 TO APR. 15 =  4.24
APR. 15 TO JULY 1  =  2.48
JULY 1 TO SEPT. 1  =   .63
SEPT. 1 TO OCT. 15 =  3.19
SEASON TOTAL       = 10.54
LONG TERM AVERAGE  = 12.45
```

**No utilization

```
    0914   KANE   DEER   EXCL   AUGUST 17/71  OUT    NATIVE

                         NUMBER PLOTS = 20
                           PLOT SIZE 1X1
PLANT  PLANT  TOTAL  AVE.    PERCENT  ABS.   TOTAL   AVE.    WGT./  LBS**
CODE   NAME   TRANS  PER-    COMPO-   PLOT   WGT.    WGT.    UNIT   PER
              BASAL  CENT    SITION   FREQ.  GMS/20  /PLOT   BASAL  AC.
              AREA   BASAL            BASE   SQ.FT.  OCCUR-  AREA
              PER-   AREA             20             RENCES
              CENT

  6    *GUSA    0.50 2.50E-02           1
  6    *JUOS  536.00 26.8              10
  6    *PHHO    0.60 3.00E-02           2
   PER GRASS    1.10  0.05              1     1.22    1.22   1.11    5.86
  3    AGGR     1.00 5.00E-02 52.6      1     1.21    1.21   1.21   5.8100
  3    POSE     0.10 T         5.26     1     0.01    0.01   0.10   4.8017E-02
   PER FORBS    0.80  0.04              4     4.36    1.09   5.45   20.94
  2    ERCO     0.20 1.00E-02 10.5      2
  2    PEAL     0.60 3.00E-02 31.6      2
     TOTAL          26.95    100.00          5.5800                 26.793

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

Shrub data not taken

```
PRECIPITATION DATA
 RAIN GUAGE NO. 21    KANE   DEER   EXCL   AUGUST 17/71
OCT. 15 TO APR. 15  = 4.24
APR. 15 TO JULY 1   = 2.48
JULY 1 TO SEPT. 1   =  .63
SEPT. 1 TO OCT. 15  = 3.19
SEASON TOTAL        =10.54
LONG TERM AVERAGE   =12.45
```

**No utilization

```
         0914    KANE    DEER    EXCL    AUGUST 17/71   INSIDE SPRAY

                                    NUMBER PLOTS = 20
                                       PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT   ABS.    TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-    PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION    FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL             BASE    SQ.FT.  OCCUR-  AREA
                PER-    AREA              20              RENCES
                CENT

  6    *ARNO      4.00 .200                  1
   PER GRASS     10.70  0.53                15     16.38    1.09   1.53   78.65
  3     AGGR      4.40 .220        32.6      9      4.83    0.54   1.10   23.192
  3     AGSP      2.20 .110        16.3      3      3.80    1.27   1.73   18.246
  3     POSE      1.10 5.50E-02 8.15         3      1.33    0.44   1.21   6.3863
  3     SIHY      2.00 .100        14.8      1      5.04    5.04   2.52   24.201
  3     STCO      1.00 5.00E-02 7.41         1      1.38    1.38   1.38   6.6263
   PER FORBS      1.20  0.06                 7      4.83    0.69   4.02   23.19
  2     ERCO      0.30 1.50E-02 2.22         3
  2     GISP      0.50 2.50E-02 3.70         1
  2     PHAV      0.40 2.00E-02 2.96         4
   ANN FORBS      1.60  0.08                10      9.20    0.92   5.75   44.18
  4     DEPI      0.30 1.50E-02 2.22         3
  4     LAC       0.50 2.50E-02 3.70         5
  4     LARE      0.80 4.00E-02 5.93         8
      TOTAL             0.87     100.00            30.410                 146.02

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES CF SHRUBS AND WOODY MAT FORM PLANTS
```

Shrub data not taken

```
PRECIPITATION DATA
 RAIN GUAGE NO. 21      KANE   DEER   EXCL   AUGUST 17/71
OCT. 15 TO APR. 15 =  4.24
APR. 15 TO JULY 1  =  2.48
JULY 1 TO SEPT. 1  =   .63
SEPT. 1 TO OCT. 15 =  3.19
SEASON TOTAL       = 10.54
LONG TERM AVERAGE  = 12.45
```

**Production adjusted for utilization   Total adjusted   147.42

```
          0914    KANE    DEER    EXCL    AUGUST 17/71   OUT     SPRAY

                                NUMBER PLOTS = 20
                                  PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT   ABS.     TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-    PLOT     WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION    FREQ.    GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL             BASE     SQ.FT.  OCCUR-  AREA
                PER-    AREA              20               RENCES
                CENT

  6    *GUSA      0.60 3.00E-02               2
  PER GRASS       4.00  0.20                  9     1,75    0.19   0.44    8.40
  3    AGGR       1.40 7.00E-02 15.1          6     1.25    0.21   0.89   6.0021
  3    POSE       2.60 .130       28.0        5     0.50    0.10   0.19   2.4008
  PER FORBS       2.60  0.13                 12     4.78    0.40   1.84   22.95
  2    ERCO       1.00 5.00E-02 10.8          6
  2    PEAL       0.60 3.00E-02 6.45          2
  2    PHAU       1.00 5.00E-02 10.8          6
  ANN GRASS       0.60  0.03                  2     0.78    0.39   1.30    3.75
  5    BRTE       0.60 3.00E-02 6.45          2
  ANN FORBS       2.10  0.10                 12     2.49    0.21   1.19   11.96
  4    DEPI       0.30 1.50E-02 3.23          3
  4    LAC        0.60 3.00E-02 6.45          2
  4    LARE       1.00 5.00E-02 10.8         10
  4    LEDE       0.10 T          1.08        1
  4    SAKA       0.10 T          1.08        1
     TOTAL             0.49     100.00            9.8000                  47.057

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
          Shrub data not taken



PRECIPITATION DATA
 RAIN GUAGE NO. 21    KANE    DEER    EXCL    AUGUST 17/71
OCT. 15 TO APR. 15 =  4.24
APR. 15 TO JULY 1  =  2.48
JULY 1 TO SEPT. 1  =   .63
SEPT. 1 TO OCT. 15 =  3.19
SEASON TOTAL       = 10.54
LONG TERM AVERAGE  = 12.45


**Production adjusted for utilization                 Total adjusted     48.68
```

```
        0921   KANE   G.R.I. EXCL   AUGUST 17/71  INSIDE SPRAY

                            NUMBER PLOTS = 20
                               PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.    TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-   PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION   FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL            BASE    SQ.FT.  OCCUR-  AREA
                PER-    AREA             20              RENCES
                CENT

  6    *CHVI    35.00  1.75                1
  6    *GUSA     3.00  .150                4
   PER GRASS     8.30   0.41              10     10.54    1.05    1.27    50.61
  3     AGSP     7.70  .385       23.5    10      8.88    0.89    1.15   42.639
  3     POSE     0.10  T          .306     1      0.56    0.56    5.60   2.6889
  3     STCO     0.50  2.50E-02   1.53     1      1.10    1.10    2.20   5.2819
   ANN FORBS    24.40   1.22              15     43.84    2.92    1.80  210.51
  4     DEPI     3.80  .190       11.6    13
  4     LAC      2.00  .100       6.12     3
  4     SAKA    18.60  .930       56.9     5
      TOTAL             3.53    100.00           54.380                  261.12

          * NOT COMPUTED IN PERCENT COMPOSITION
          T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

Shrub data not taken

```
PRECIPITATION DATA
 RAIN GUAGE NO. 149   KANE   G.R.I. EXCL   AUGUST 17/71
OCT. 15 TO APR. 15 =  3.86
APR. 15 TO JULY 1  =  2.20
JULY 1 TO SEPT. 1  =   .81
SEPT. 1 TO OCT. 15 =  3.23
SEASON TOTAL       = 10.10
LONG TERM AVERAGE  = 13.88
```

**Production adjusted for utilization

Total adjusted 281.69

```
          0921    KANE    G.R.I. EXCL    AUGUST 17/71   OUT     NATIVE

                                NUMBER PLOTS = 20
                                  PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.     TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-   PLOT     WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION   FREQ.   GMS/20  /PLOT    BASAL   AC.
                AREA    BASAL            BASE    SQ.FT.  OCCUR-   AREA
                PER-    AREA             20              RENCES
                CENT

  6    *ARNO      3.00 .150                 1
  6    *CELE     50.00 2.50                 1
  6    *JUOS    795.00 39.8                14
   PER GRASS      0.50  0.02                1       0.17     0.17   0.34     0.82
  3    AGSP       0.50 2.50E-02 83.3        1       0.17     0.17   0.34   .81629
   ANN FORBS      0.10  0.00                1       0.13     0.13   1.30     0.62
  4    DEPI       0.10 T           16.7     1
     TOTAL            42.43     100.00            .30000                   1.4405

          * NOT COMPUTED IN PERCENT COMPOSITION
          T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

Shrub data not taken

```
PRECIPITATION DATA
 RAIN GUAGE NO. 149    KANE    G.R.I. EXCL    AUGUST 17/71
OCT. 15 TO APR. 15  =  3.86
APR. 15 TO JULY 1   =  2.20
JULY 1 TO SEPT. 1   =   .81
SEPT. 1 TO OCT. 15  =  3.23
SEASON TOTAL        = 10.10
LONG TERM AVERAGE   = 13.88
```

**No utilization

1502 KIRBY CREEK EXCL JULY 22/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*SAVE	113.10	5.65		6				
	PER GRASS	25.60	1.28		12	48.77	4.06	1.91	234.18
3	AGSM	23.10	1.15	57.3	12	46.65	3.89	2.02	224.00
3	POSE	2.50	.125	6.20	2	2.12	1.06	0.85	10.180
	ANN FORBS	14.70	0.73		20	44.00	2.20	2.99	211.27
4	CHEN	2.40	.120	5.96	12				
4	DEPI	0.10	T	.248	1				
4	EUSE	2.50	.125	6.20	13				
4	LARE	0.90	4.50E-02	2.23	9				
4	LEDE	0.10	T	.248	1				
4	LEPE	8.50	.425	21.1	12				
4	SAKA	0.20	1.00E-02	.496	2				
	TOTAL		7.67	100.00		92.770			445.45

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

SAVE	20.40
Shrub Prod.	20.40
Total	465.85

PRECIPITATION DATA
RAIN GUAGE NO. 77 KIRBY CREEK EXCL JULY 22/71
OCT. 15 TO APR. 15 = 2.17
APR. 15 TO JULY 1 = 4.93
JULY 1 TO SEPT. 1 = .93
SEPT. 1 TO OCT. 15 = 3.50
SEASON TOTAL = 11.53
LONG TERM AVERAGE = 9.03

**No utilization

```
          1502   KIRBY  CREEK  EXCL   JULY   22/71  OUT    NATIVE

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.   TOTAL  AVE.   WGT./  LBS**
CODE   NAME    TRANS  PER-   COMPO-   PLOT   WGT.   WGT.   UNIT   PER
               BASAL  CENT   SITION   FREQ.  GMS/20 /PLOT  BASAL  AC.
               AREA   BASAL           BASE   SQ.FT. OCCUR- AREA
               PER-   AREA            20            RENCES
               CENT

  6   *SAVE    220.30 11.0              8
   PER GRASS    32.10  1.60            13     46.63   3.59  1.45 223.90
  3   AGSM      16.10 .805      38.2    9     32.29   3.59  2.01  155.05
  3   SPAI      16.00 .800      37.9    4     14.34   3.58  0.90  68.856
   ANN GRASS     0.20  0.01             2      0.20   0.10  1.00    0.96
  5   BRTE       0.10 T         .237    1
  5   MUSQ       0.10 T         .237    1
   ANN FORBS     9.90  0.49            19     25.49   1.34  2.57 122.40
  4   CHEN       0.80 4.00E-02 1.90     8
  4   DEPI       0.20 1.00E-02 .474     2
  4   LARE       0.50 2.50E-02 1.18     5
  4   LEDE       0.80 4.00E-02 1.90     8
  4   LEPE       7.40 .370     17.5    11
  4   PLSP       0.10 T         .237    1
  4   SAKA       0.10 T         .237    1
     TOTAL           13.12    100.00         72.320                347.26

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

OPPO .34
SAVE 31.10

Shrub Prod. 31.44

Total 378.70

```
PRECIPITATION DATA
 RAIN GUAGE NO. 77   KIRBY  CREEK  EXCL   JULY   22/71
OCT. 15 TO APR. 15  = 2.17
APR. 15 TO JULY 1   = 4.93
JULY 1 TO SEPT. 1   =  .93
SEPT. 1 TO OCT. 15  = 3.50
SEASON TOTAL        =11.53
LONG TERM AVERAGE   = 9.03
```

**No utilization

**No utilization

1001 LANDER ANT EXCL. AUGUST 18/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	122.30	6.11		10				
6	*OPPO	3.10	.155		3				
6	*PHHO	10.00	.500		3				
PER GRASS		31.10	1.55		20	25.49	1.27	0.82	122.40
3	AGSM	6.80	.340	19.7	19	12.77	0.67	1.88	61.318
3	BOGR	2.30	.115	6.67	3	0.30	0.10	0.13	1.4405
3	CAEL	1.20	6.00E-02	3.48	6	0.91	0.15	0.76	4.3695
3	POSE	12.30	.615	35.7	11	4.13	0.38	0.34	19.831
3	STCU	8.50	.425	24.6	5	7.38	1.48	0.87	35.436
PER FORBS		0.70	0.03		7	0.53	0.08	0.76	2.54
2	ALTE	0.10	T	.290	1				
2	ERPU	0.10	T	.290	1				
2	SPCO	0.50	2.50E-02	1.45	5				
ANN FORBS		2.70	0.13		19	0.60	0.03	0.22	2.88
4	DEPI	0.20	1.00E-02	.580	2				
4	LEDE	0.50	2.50E-02	1.45	5				
4	PLPA	2.00	.100	5.80	17				
	TOTAL		8.49	100.00		26.620			127.82

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	186.77
OPPO	37.63
PHHO	11.47
Shrub Prod.	235.87
Total	363.69

PRECIPITATION DATA
RAIN GUAGE NO. 5 LANDER ANT EXCL. AUGUST 18/71
OCT. 15 TO APR. 15 = 2.51
APR. 15 TO JULY 1 = 6.80
JULY 1 TO SEPT. 1 = .95
SEPT. 1 TO OCT. 15 = 2.62
SEASON TOTAL =12.78
LONG TERM AVERAGE = 8.84

**No utilization

1001 LANDER ANT EXCL. AUGUST 18/71 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS ** PER AC.
6	*ARTR	83.70	4.18		11				
6	*OPPO	5.50	.275		2				
6	*PHHO	2.00	.100		1				
	PER GRASS	98.00	4.90		20	52.68	2.63	0.54	252.95
3	AGSM	15.60	.780	15.3	18	31.06	1.73	1.99	149.14
3	BOGR	68.50	3.42	67.4	7	15.18	2.17	0.22	72.890
3	ORHY	1.50	7.50E-02	1.47	2	1.31	0.65	0.87	6.2902
3	POSE	11.40	.570	11.2	13	3.83	0.29	0.34	18.390
3	STCO	1.00	5.00E-02	.983	1	1.30	1.30	1.30	6.2422
	PER FORBS	0.50	0.02		5	0.72	0.14	1.44	3.46
2	ALTE	0.20	1.00E-02	.197	2				
2	ERPU	0.30	1.50E-02	.295	3				
	ANN FORBS	3.20	0.16		18	2.41	0.13	0.75	11.57
4	CHEN	0.50	2.50E-02	.492	5				
4	DEPI	0.70	3.50E-02	.688	7				
4	LEDE	0.30	1.50E-02	.295	3				
4	PLPA	1.60	8.00E-02	1.57	16				
4	PLSP	0.10	T	9.83E-02	1				
	TOTAL		9.64	100.00		55.810			267.98

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	202.89
OPPO	43.02
PHHO	9.16
Shrub Prod.	255.07
Total	523.05

PRECIPITATION DATA
RAIN GUAGE NO. 5 LANDER ANT EXCL. AUGUST 18/71
OCT. 15 TO APR. 15 = 2.51
APR. 15 TO JULY 1 = 6.80
JULY 1 TO SEPT. 1 = .95
SEPT. 1 TO OCT. 15 = 2.62
SEASON TOTAL = 12.78
LONG TERM AVERAGE = 8.84

**No utilization

1003 LOWER GOVT DRAW AUGUST 19/71 IN NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PERCENT	AVE. PERCENT BASAL AREA	PERCENT COMPOSITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCURRENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	295.40	14.8		12				
	PER GRASS	23.30	1.16		20	51.78	2.59	2.22	248.63
3	AGSM	8.10	.405	24.4	19	30.63	1.61	3.78	147.08
3	KOCR	0.10	T	.301	1	1.10	1.10	11.00	5.2819
3	POSE	8.80	.440	26.5	10	7.04	0.70	0.80	33.804
3	STCO	6.30	.315	19.0	6	13.01	2.17	2.07	62.470
	PER FORBS	0.20	0.01		2	0.59	0.29	2.95	2.83
2	AGGL	0.10	T	.301	1				
2	AST	0.10	T	.301	1				
	ANN GRASS	9.50	0.47		13	17.70	1.36	1.86	84.99
5	BRTE	9.50	.475	28.6	13				
	ANN FORBS	0.20	0.01		2	0.05	0.02	0.25	0.24
4	GILE	0.10	T	.301	1				
4	MIGR	0.10	T	.301	1				
	TOTAL		16.43	100.00		70.120			336.69

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	557.09
CHVI	.29
OPPO	.24
PHHO	1.15
Shrub Prod.	558.77
Total	895.46

PRECIPITATION DATA
RAIN GUAGE NO. 16 LOWER GOVT DRAW AUGUST 19/71
OCT. 15 TO APR. 15 = 2.50
APR. 15 TO JULY 1 = 7.40
JULY 1 TO SEPT. 1 = .82
SEPT. 1 TO OCT. 15 = 2.47
SEASON TOTAL = 13.19
LONG TERM AVERAGE = 10.62

**No utilization

1003 LOWER GOVT DRAW AUGUST 19/71 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PERCENT	AVE. PERCENT BASAL AREA	PERCENT COMPOSITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCURRENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	310.50	15.5		11				
	PER GRASS	24.10	1.20		18	24.04	1.34	1.00	115.43
3	AGSM	2.80	.140	9.00	12	10.92	0.91	3.90	52.434
3	KOCR	1.60	8.00E-02	5.14	3	2.18	0.73	1.36	10.468
3	POSE	13.40	.670	43.1	15	8.05	0.54	0.60	38.654
3	SIHY	0.10	T	.322	1	0.09	0.09	0.90	.43215
3	STCO	6.20	.310	19.9	5	2.80	0.56	0.45	13.445
	PER FORBS	0.80	0.04		8	2.13	0.27	2.66	10.23
2	ALTE	0.10	T	.322	1				
2	ERPU	0.10	T	.322	1				
2	SPCO	0.60	3.00E-02	1.93	6				
	ANN GRASS	4.40	0.22		15	13.67	0.91	3.11	65.64
5	BRTE	4.40	.220	14.1	15				
	ANN FORBS	1.80	0.09		15	1.60	0.11	0.89	7.68
4	CHEN	0.10	T	.322	1				
4	LEDE	0.20	1.00E-02	.643	2				
4	MIGR	1.50	7.50E-02	4.82	15				
	TOTAL		17.08	100.00		41.440			198.98

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	496.89
CHVI	3.45
OPPO	.24
Shrub Prod.	500.58
Total	699.56

PRECIPITATION DATA
RAIN GUAGE NO. 16 LOWER GOVT DRAW AUGUST 19/71
OCT. 15 TO APR. 15 = 2.50
APR. 15 TO JULY 1 = 7.40
JULY 1 TO SEPT. 1 = .82
SEPT. 1 TO OCT. 15 = 2.47
SEASON TOTAL = 13.19
LONG TERM AVERAGE = 10.62

**Production adjusted for utilization

	216.61
	500.58
Total adjusted	716.61

1003 LOWER GOVT DRAW AUGUST 19/71 IN SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*OPPO	4.00	.200		1				
	PER GRASS	77.10	3.85		20	91.50	4.57	1.19	439.35
3	AGSM	8.50	.425	9.38	20	27.75	1.39	3.26	133.25
3	POSE	13.60	.680	15.0	8	6.63	0.83	0.49	31.835
3	STCO	55.00	2.75	60.7	11	57.12	5.19	1.04	274.27
	PER FORBS	0.10	0.00		1	0.19	0.19	1.90	0.91
2	SPCO	0.10	T	.110	1				
	ANN GRASS	13.30	0.66		16	39.80	2.49	2.99	191.11
5	BRTE	13.30	.665	14.7	16				
	ANN FORBS	0.10	0.00		1	0.07	0.07	0.70	0.34
4	MIGR	0.10	T	.110	1				
	TOTAL		4.73	100.00		131.56			631.71

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	9.69
CHVI	.14
OPPO	.24
Shrub Prod.	10.07
Total	641.78

PRECIPITATION DATA
RAIN GUAGE NO. 16 LOWER GOVT DRAW AUGUST 19/71
OCT. 15 TO APR. 15 = 2.50
APR. 15 TO JULY 1 = 7.40
JULY 1 TO SEPT. 1 = .82
SEPT. 1 TO OCT. 15 = 2.47
SEASON TOTAL = 13.19
LONG TERM AVERAGE = 10.62

**No utilization

```
       1003   LOWER   GOVT   DRAW   AUGUST 19/71  OUT    SPRAY

                          NUMBER PLOTS = 20
                            PLOT SIZE 1X1
PLANT    PLANT      TOTAL  AVE.     PERCENT  ABS.   TOTAL   AVE.    WGT./   LBS**
CODE     NAME       TRANS  PER-     COMPO-   PLOT   WGT.    WGT.    UNIT    PER
                    BASAL  CENT     SITION   FREQ.  GMS/20  /PLOT   BASAL   AC.
                    AREA   BASAL             BASE   SQ.FT.  OCCUR-  AREA
                    PER-   AREA              20             RENCES
                    CENT

  6    *ARTR        12.50  .625                 2
   PER GRASS        71.60   3.58               20    42.35   2.12   0.59  203.35
  3     AGSM        20.60  1.03       26.6     20    25.40   1.27   1.23  121.96
  3     POSE        41.00  2.05       52.9     18    13.73   0.76   0.33  65.927
  3     STCO        10.00  .500       12.9      6     3.22   0.54   0.32  15.461
   PER FORBS         0.50   0.02                1     0.24   0.24   0.48    1.15
  2     AST          0.50  2.50E-02   .645      1
   ANN GRASS         5.30   0.26               14     8.33   0.59   1.57   40.00
  5     BRTE         5.30  .265       6.84     14
   ANN FORBS         0.10   0.00                1     0.03   0.03   0.30    0.14
  4     CHEN         0.10  T          .129      1
      TOTAL                 4.50    100.00          50.950                 244.65

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR		38.78
CHVI		.76
OPPO		1.00
	Shrub Prod.	40.54
	Total	285.19

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PRECIPITATION DATA
 RAIN GUAGE NO. 16     LOWER   GOVT   DRAW   AUGUST 19/71
OCT. 15 TO APR. 15 =  2.50
APR. 15 TO JULY 1  =  7.40
JULY 1 TO SEPT. 1  =   .82
SEPT. 1 TO OCT. 15 =  2.47
SEASON TOTAL       = 13.19
LONG TERM AVERAGE  = 10.62
```

**Production adjusted for utilization		316.19
		285.19
	Total adjusted	601.38

1004 MCGRAW FLATS EXCL AUGUST 20/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	337.50	16.9		15				
6	*CHVI	6.00	.300		1				
6	*PHHO	8.50	.425		6				
PER GRASS		110.10	5.50		20	62.26	3.11	0.57	298.95
3	AGSM	11.10	.555	9.80	20	32.54	1.63	2.93	156.25
3	POFE	97.60	4.88	86.1	16	27.39	1.71	0.28	131.52
3	POSE	1.40	7.00E-02	1.24	4	2.33	0.58	1.66	11.188
PER FORBS		2.00	0.10		12	2.73	0.23	1.36	13.11
2	ERPU	0.60	3.00E-02	.530	3				
2	SPCO	0.50	2.50E-02	.441	3				
2	VIAM	0.90	4.50E-02	.794	8				
ANN FORBS		1.20	0.06		8	4.38	0.55	3.65	21.03
4	CORA	0.90	4.50E-02	.794	6				
4	CRE	0.10	T	8.83E-02	1				
4	TRI	0.20	1.00E-02	.177	2				
	TOTAL		23.26	100.00		69.370			333.09

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	473.52
CHVI	8.98
PHHO	91.87
Shrub Prod.	574.37
Total	907.46

PRECIPITATION DATA
RAIN GUAGE NO. 14 MCGRAW FLATS EXCL AUGUST 20/71
OCT. 15 TO APR. 15 = 2.83
APR. 15 TO JULY 1 = 6.87
JULY 1 TO SEPT. 1 = .97
SEPT. 1 TO OCT. 15 = 2.38
SEASON TOTAL =13.05
LONG TERM AVERAGE = 9.75

**No utilization

```
         1004    MCGRAW FLATS   EXCL   AUGUST 20/71   OUT     NATIVE

                                NUMBER PLOTS = 20
                                  PLOT SIZE 1X1
PLANT   PLANT   TOTAL  AVE.    PERCENT  ABS.     TOTAL   AVE.     WGT./  LBS**
CODE    NAME    TRANS  PER-    COMPO-   PLOT     WGT.    WGT.     UNIT   PER
                BASAL  CENT    SITION   FREQ.    GMS/20  /PLOT    BASAL  AC.
                AREA   BASAL            BASE     SQ.FT.  OCCUR-   AREA
                PER-   AREA             20               RENCES
                CENT

  6    *ARTR   236.10 11.8                 13
  6    *CHVI     2.10 .105                  3
  6    *PHHO    12.00 .600                  7
   PER GRASS    47.70  2.38                20     45.14   2.26   0.95 216.75
  3     AGSM     6.70 .335        13.0     20     21.10   1.05   3.15  101.32
  3     POFE    24.00 1.20        46.5     10     11.90   1.19   0.50  57.140
  3     POSE    17.00 .850        32.9     11     12.14   1.10   0.71  58.293
   PER FORBS     2.70  0.13                12      6.17   0.51   2.29  29.63
  2     ERPU     0.10 T           .194      1
  2     SPCO     0.80 4.00E-02 1.55         4
  2     VIAM     1.80 9.00E-02 3.49        10
   ANN FORBS     1.20  0.06                10      3.30   0.33   2.75  15.85
  4     CORA     0.90 4.50E-02 1.74         9
  4     CRE      0.10 T           .194      1
  4     TRI      0.20 1.00E-02 .388         2
      TOTAL           15.09   100.00              54.610                262.22

         * NOT COMPUTED IN PERCENT COMPOSITION
         T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	242.64
CHVI	20.25
PHHO	83.95
Shrub Prod.	346.84
Total	609.06

```
PRECIPITATION DATA
 RAIN GUAGE NO. 14    MCGRAW FLATS   EXCL    AUGUST 20/71
OCT. 15 TO APR. 15 = 2.83
APR. 15 TO JULY 1  = 6.87
JULY 1 TO SEPT. 1  =  .97
SEPT. 1 TO OCT. 15 = 2.38
SEASON TOTAL       =13.05
LONG TERM AVERAGE  = 9.75
```

**Production adjusted for utilization	264.13
	346.84
Total adjusted	610.97

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        0920   MEDICI LODGE  G.R.I. AUGUST 16/71  INSIDE SPRAY

                               NUMBER PLOTS = 20
                                 PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.     PERCENT  ABS.   TOTAL  AVE.    WGT./  LBS**
CODE   NAME    TRANS  PER-     COMPO-   PLOT   WGT.   WGT.    UNIT   PER
               BASAL  CENT     SITION   FREQ.  GMS/20 /PLOT   BASAL  AC.
               AREA   BASAL             BASE   SQ.FT. OCCUR-  AREA
               PER-   AREA              20            RENCES
               CENT

  6   *ARTR     55.10 2.75                  2
   PER GRASS    50.00  2.50                20   46.27   2.31   0.93 222.17
  3    AGSP      6.20 .310        10.9      6   11.40   1.90   1.84  54.739
  3    FEID     29.50 1.47        51.8     11   25.19   2.29   0.85  120.95
  3    KOCR      3.80 .190        6.67      6    1.34   0.22   0.35  6.4343
  3    POSE      5.00 .250        8.77     14    3.25   0.23   0.65  15.606
  3    STCO      5.50 .275        9.65      4    5.09   1.27   0.93  24.441
   PER FORBS     0.80  0.04                 4    1.42   0.35   1.77    6.82
  2    ALTE      0.10 T           .175      1
  2    CRBR      0.20 1.00E-02 .351         2
  2    SED       0.50 2.50E-02 .877         1
   ANN GRASS     1.20  0.06                12    1.60   0.13   1.33    7.68
  5    FEOC      1.20 6.00E-02 2.11        12
   ANN FORBS     5.00  0.25                18    5.05   0.28   1.01   24.25
  4    DEPI      0.10 T           .175      1
  4    GYPA      1.50 7.50E-02 2.63        15
  4    LEDE      1.10 5.50E-02 1.93        11
  4    MIGR      1.20 6.00E-02 2.11        12
  4    PLPA      0.10 T           .175      1
  4    POAV      1.00 5.00E-02 1.75        10
       TOTAL          5.60     100.00          54.340                260.92

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
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Shrub data not taken

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PRECIPITATION DATA
 RAIN GUAGE NO. 148   MEDICI LODGE  G.R.I. AUGUST 16/71
OCT. 15 TO APR. 15 = 4.49
APR. 15 TO JULY 1  = 4.50
JULY 1 TO SEPT. 1  =  .82
SEPT. 1 TO OCT. 15 = 4.47
SEASON TOTAL       =14.28
LONG TERM AVERAGE  =14.53
```

**No utilization

0920 MEDICI LODGE G.R.I. AUGUST 16/71 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	63.00	3.15		3				
6	*GUSA	0.10	T		1				
6	*JUOS	110.00	5.50		2				
6	*PHHO	1.00	5.00E-02		1				
	PER GRASS	8.00	0.40		18	6.51	0.36	0.81	31.26
3	AGSP	1.10	5.50E-02	10.0	3	1.25	0.42	1.14	6.0021
3	FEID	0.60	3.00E-02	5.45	2	0.52	0.26	0.87	2.4969
3	KOCR	3.50	.175	31.8	10	1.87	0.19	0.53	8.9792
3	POSE	1.50	7.50E-02	13.6	11	1.49	0.14	0.99	7.1545
3	STCO	1.30	6.50E-02	11.8	5	1.38	0.28	1.06	6.6263
	PER FORBS	0.20	0.01		2	0.35	0.17	1.75	1.68
2	SED	0.20	1.00E-02	1.82	2				
	ANN FORBS	2.80	0.14		15	0.62	0.04	0.22	2.98
4	GYPA	1.00	5.00E-02	9.09	10				
4	LEDE	1.10	5.50E-02	10.0	11				
4	PLPA	0.20	1.00E-02	1.82	2				
4	POAV	0.50	2.50E-02	4.55	1				
	TOTAL		9.25	100.00		7.4800			35.917

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

Shrub data not taken

PRECIPITATION DATA
RAIN GUAGE NO. 148 MEDICI LODGE G.R.I. AUGUST 16/71
OCT. 15 TO APR. 15 = 4.49
APR. 15 TO JULY 1 = 4.50
JULY 1 TO SEPT. 1 = .82
SEPT. 1 TO OCT. 15 = 4.47
SEASON TOTAL =14.28
LONG TERM AVERAGE =14.53

**No utilization

1503 NORTH BUTTE RELIC JULY 23/71 NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	44.00	2.20		6				
6	*OPPO	4.60	.230		3				
6	*PHHO	1.20	6.00E-02		4				
PER GRASS		173.40	8.67		20	167.92	8.40	0.97	806.30
3	AGSP	166.30	8.31	94.8	20	160.65	8.03	0.97	771.39
3	POSE	7.10	.355	4.05	13	7.27	0.56	1.02	34.908
PER FORBS		0.80	0.04		7	2.52	0.36	3.15	12.10
2	ALTE	0.10	T	5.70E-02	1				
2	SPCO	0.40	2.00E-02	.228	4				
2	UMB	0.30	1.50E-02	.171	3				
ANN FORBS		1.20	0.06		9	1.97	0.22	1.64	9.46
4	CAMI	0.10	T	5.70E-02	1				
4	CRE	0.10	T	5.70E-02	1				
4	DEPI	0.80	4.00E-02	.456	8				
4	LARE	0.20	1.00E-02	.114	2				
TOTAL			11.26	100.00		172.41			827.86

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	59.81
OPPO	6.43
PHHO	2.45
Shrub Prod.	68.69
Total	896.55

PRECIPITATION DATA U.S. Weather Bureau - Thermopolis
RAIN GUAGE NO. NORTH BUTTE RELIC JULY 23/71
OCT. 15 TO APR. 15 = 2.49
APR. 15 TO JULY 1 = 6.31
JULY 1 TO SEPT. 1 = .79
SEPT. 1 TO OCT. 15 = 3.13
SEASON TOTAL = 12.72
LONG TERM AVERAGE = 11.46

**No utilization

1504 ROUND TOP RELIC JULY 23/71 NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PERCENT	AVE. PERCENT BASAL AREA	PERCENT COMPOSITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCURRENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	46.50	2.32		5				
	PER GRASS	153.70	7.68		20	91.45	4.57	0.59	439.11
3	AGSP	116.10	5.80	74.3	19	76.83	4.04	0.66	368.91
3	CAFI	29.10	1.45	18.6	16	12.00	0.75	0.41	57.620
3	POSE	6.50	.325	4.16	11	1.85	0.17	0.28	8.8831
3	STCO	2.00	.100	1.28	1	0.77	0.77	0.38	3.6973
	PER FORBS	1.40	0.07		13	2.91	0.22	2.08	13.97
2	ALTE	1.20	6.00E-02	.768	12				
2	ZYG	0.20	1.00E-02	.128	2				
	ANN FORBS	1.20	0.06		12	0.44	0.04	0.37	2.11
4	CRE	0.20	1.00E-02	.128	2				
4	DEPI	1.00	5.00E-02	.640	10				
	TOTAL		10.14	100.00		94.800			455.20

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	144.00
GUSA	2.64
Shrub Prod.	146.64
Total	601.84

PRECIPITATION DATA U.S. Weather Bureau Thermopolis
RAIN GUAGE NO. ROUND TOP RELIC JULY 23/71
OCT. 15 TO APR. 15 = 2.49
APR. 15 TO JULY 1 = 6.31
JULY 1 TO SEPT. 1 = .79
SEPT. 1 TO OCT. 15 = 3.13
SEASON TOTAL = 12.72
LONG TERM AVERAGE = 11.46

**Production adjusted for utilization

	457.11
	146.64
Total adjusted	603.75

1505 SAND GULCH EXCL JULY 20/71 INSIDE NATIVE

NUMBER OF PLOTS
COVER = 200, PRODUCTION = 20
PLOT SIZE 1 FT. X 10 FT.

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 200	TOTAL WGT. GMS/ 200 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	OPPO	81.2	.406		15				
1	ATNU	729.4	3.65	51.7	62	334.32	5.39	0.46	160.53
	PER GRASS	661.4	3.31		147	636.18	4.33	0.96	305.47
3	AGSM	454.3	2.27	32.2	147	534.63	3.64	1.18	256.71
3	BOGR	154.6	.773	11.0	10	33.78	3.38	0.22	16.220
3	ORHY	20.2	.101	1.43	10	54.09	5.41	2.68	25.972
3	POSE	30.4	.152	2.16	36	12.57	0.35	0.41	6.0357
3	SIHY	1.9	T	.135	6	1.11	0.18	0.58	.53299
	PER FORBS	1.30	0.01		6	1.56	0.26	1.20	0.75
2	ALTE	0.3	T	2.13E-02	3				
2	SPCO	1.0	T	7.09E-02	6				
	ANN GRASS	5.60	0.03		26	4.33	0.17	0.77	2.08
5	BRMO	0.1	T	T	1				
5	BRTE	3.4	1.70E-02	.241	26				
5	MUSQ	2.1	1.05E-02	.149	21				
	ANN FORBS	11.80	0.06		28	9.53	0.34	0.81	4.58
4	CAMI	2.7	1.35E-02	.192	27				
4	CHEN	3.2	1.60E-02	.227	28				
4	LARE	2.1	1.05E-02	.149	21				
4	LEDE	3.2	1.60E-02	.227	23				
4	SAKA	0.6	T	4.26E-02	6				
	TOTAL		7.5	100.00		985.920			473.409

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

OPPO	21.36
Shrub Prod.	21.36
Total	494.769

PRECIPITATION DATA
RAIN GUAGE NO. 75 SAND GULCH EXCL JULY 20/71
OCT. 15 TO APR. 15 = 1.98
APR. 15 TO JULY 1 = 4.62
JULY 1 TO SEPT. 1 = .70
SEPT. 1 TO OCT. 15 = 3.78
SEASON TOTAL = 11.08
LONG TERM AVERAGE = 9.13

**No utilization

```
            1505   SAND   GULCH  EXCL   JULY   20/71  OUTSID NATIVE

                             NUMBER OF PLOTS
                       COVER = 200, PRODUCTION = 20
                         PLOT SIZE 1 FT. X 10 FT.
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.    TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-   PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION   FREQ.   GMS/    /PLOT   BASAL   AC.
                AREA    BASAL            BASE    200     OCCUR-  AREA
                PER-    AREA             200     SQ.FT.  RENCES
                CENT

  6  OPPO         42.1  .210                 6
  1  ATNU       1886.0  9.43       76.5    101    782.83   7.75   0.42   375.89
   PER GRASS   491.5   2.46                 76    250.72   3.30   0.51   120.39
  3  AGSM          5.3  2.65E-02 .215        7     20.30   2.90   3.83   9.7474
  3  BOGR        418.2  2.09       17.0     76    159.65   2.10   0.38   76.659
  3  POSE         10.7  5.35E-02 .434       16      4.12   0.26   0.39   1.9783
  3  SIHY         57.3  .286       2.33     19     66.65   3.51   1.16   32.003
   PER FORBS      0.30  0.00                 2      0.68   0.34   2.27    0.33
  2  ALTE          0.1  T        T           1
  2  SPCO          0.2  T        T           2
   ANN GRASS     23.00  0.11               104     62.48   0.60   2.72   30.00
  5  BRTE          9.8  4.90E-02 .398       57
  5  MUSQ         13.2  6.60E-02 .536      104
   ANN FORBS     63.60  0.32               128    148.03   1.16   2.33   71.08
  4  ATAR         13.9  6.95E-02 .564       72
  4  CAMI          0.3  T        1.22E-02    3
  4  CHEN          9.6  4.80E-02 .390       96
  4  CORA          0.2  T        T           2
  4  DEPI          1.4  T        5.68E-02   10
  4  GIPU          3.2  1.60E-02 .130       28
  4  LARE         12.4  6.20E-02 .503      120
  4  LFDE         16.4  8.20E-02 .665      128
  4  PLPA          0.7  T        2.84E-02    7
  4  PLSP          5.2  2.60E-02 .211       39
  4  SAKA          0.3  T        1.22E-02    3
     TOTAL              12.5     100.00          1244.74                 597.686

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

OPPO

	45.98
Shrub Prod.	45.98
Total	543.666

```
PRECIPITATION DATA
 RAIN GUAGE NO. 75      SAND    GULCH   EXCL    JULY    20/71
OCT. 15 TO APR. 15  =  1.98
APR. 15 TO JULY 1   =  4.62
JULY 1 TO SEPT. 1   =   .70
SEPT. 1 TO OCT. 15  =  3.78
SEASON TOTAL        = 11.08
LONG TERM AVERAGE   =  9.13
```

**No utilization

```
        1009   SHOSHO ANT NO EXCL.2 AUGUST 26/71  INSIDE NATIVE

                                 NUMBER PLOTS = 20
                                   PLOT SIZE 1X1
PLANT  PLANT   TOTAL   AVE.     PERCENT  ABS.     TOTAL   AVE.     WGT./   LBS **
CODE   NAME    TRANS   PER-     COMPO-   PLOT     WGT.    WGT.     UNIT    PER
               BASAL   CENT     SITION   FREQ.    GMS/20  /PLOT    BASAL   AC.
               AREA    BASAL             BASE     SQ.FT.  OCCUR-   AREA
               PER-    AREA              20               RENCES
               CENT

  6   *ARTR    119.00 5.95                 9
  6   *OPPO      5.00 .250                 2
   PER GRASS   108.20  5.41               16      32.41    2.03    0.30  155.62
  3    AGSM      6.20 .310        5.63     6       8.95    1.49    1.44   42.975
  3    BOGR     94.00 4.70       85.4     10      20.68    2.07    0.22   99.299
  3    POSE      7.50 .375        6.81     7       2.28    0.33    0.30   10.948
  3    SIHY      0.50 2.50E-02  .454       1       0.50    0.50    1.00   2.4008
   PER FORBS     0.40  0.02                4       0.51    0.13    1.27    2.45
  2    ALTE      0.20 1.00E-02  .182       2
  2    SPCO      0.20 1.00E-02  .182       2
   ANN FORBS     1.50  0.07               11       0.42    0.04    0.28    2.02
  4    CHEN      0.10 T          9.08E-02  1
  4    LEDE      0.80 4.00E-02  .727       8
  4    PLPA      0.60 3.00E-02  .545       6
     TOTAL          11.70      100.00            33.340                  160.09

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

      ARTR                                                              450.72
      OPPO                                                               31.00
      PHHO                                                                1.77
                                                        Shrub Prod.     483.49
                                                              Total     643.58

PRECIPITATION DATA         Shoshone Ant #7
 RAIN GUAGE NO. 158        SHOSHO ANT NO EXCL.2 AUGUST 26/71
OCT. 15 TO APR. 15  =  1.33
APR. 15 TO JULY 1   =  5.60
JULY 1 TO SEPT. 1   =   .25
SEPT. 1 TO OCT. 15  =  2.40
SEASON TOTAL        =  9.58
LONG TERM AVERAGE   =  9.58
```

**No utilization

```
       1009   SHOSFO ANT SO EXCL.2 AUGUST 26/71  INSIDE NATIVE

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.    PERCENT  ABS.    TOTAL   AVE.    WGT./   LBS**
CODE   NAME    TRANS  PER-    COMPO-   PLOT    WGT.    WGT.    UNIT    PER
               BASAL  CENT    SITION   FREQ.   GMS/20  /PLOT   BASAL   AC.
               AREA   BASAL            BASE    SQ.FT.  OCCUR-  AREA
               PER-   AREA             20              RENCES
               CENT

  6    *ARTR   174.50 8.72                 8
  6    *OPPO     7.10 .355                 4
   PER GRASS   199.90  9.99               20     52.05    2.60   0.26  249.93
  3    AGSM      5.80 .290        2.88    11     10.05    0.91   1.73  48.257
  3    BOGR    185.50 9.27        92.2    13     36.67    2.82   0.20  176.08
  3    ORHY      0.50 2.50E-02 .248        1      1.40    1.40   2.80  6.7224
  3    POSE      2.60 .130        1.29     3      0.18    0.06   0.07  .86430
  3    SIHY      2.00 .100        .994     1      2.10    2.10   1.05  10.084
  3    STCO      3.50 .175        1.74     3      1.65    0.55   0.47  7.9228
   PER FORBS     0.30  0.01                3      0.60    0.20   2.00    2.88
  2    ALTE      0.30 1.50E-02 .149        3
   ANN FORBS     1.10  0.05                8      0.08    0.01   0.07    0.38
  4    GIPU      0.10 T        4.97E-02    1
  4    LEDE      0.80 4.00E-02 .397        8
  4    PLPA      0.20 1.00E-02 9.94E-02    2
     TOTAL          19.14     100.00            52.730                 253.19

     * NOT COMPUTED IN PERCENT COMPOSITION
     T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	450.72
OPPO	31.00
PHHO	1.77
Shrub Prod.	483.49
Total	643.58

```
PRECIPITATION DATA  Shoshone Ant #7
 RAIN GUAGE NO. 158   SFOSHO ANT SO EXCL.2 AUGUST 26/71
OCT. 15 TO APR. 15  = 1.33
APR. 15 TO JULY 1   = 5.60
JULY 1 TO SEPT. 1   =  .25
SEPT. 1 TO OCT. 15  = 2.40
SEASON TOTAL        = 9.58
LONG TERM AVERAGE   = 9.58
```

**No utilization

```
          1009    SHOSHO ANT     EXCL.2 AUGUST 16/71  OUT     NATIVE

                                 NUMBER PLOTS = 20
                                   PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.    PERCENT   ABS.     TOTAL   AVE.     WGT./   LBS**
CODE    NAME     TRANS   PER-    COMPO-    PLOT     WGT.    WGT.     UNIT    PER
                 BASAL   CENT    SITION    FREQ.    GMS/20  /PLOT    BASAL   AC.
                 AREA    BASAL             BASE     SQ.FT.  OCCUR-   AREA
                 PER-    AREA              20               RENCES
                 CENT

  6     *ARTR    181.00 9.05                  9
  6     *OPPO     40.00 2.00                  6
  6     *PHHO      0.50 2.50E-02              1
   PER GRASS     127.70  6.38                17       32.99    1.94    0.26 158.41
  3      AGSM      3.10 .155       2.37       6        5.53    0.92    1.78  26.553
  3      BOGR    117.00 5.85       89.5      12       19.23    1.60    0.16  92.337
  3      POSE      5.10 .255       3.90       7        1.21    0.17    0.24  5.8100
  3      STCO      2.50 .125       1.91       2        7.02    3.51    2.81  33.708
   PER FORBS       0.80  0.04                 3        0.63    0.21    0.79   3.03
  2      ALTE      0.10 T          7.65E-02   1
  2      ERPU      0.50 2.50E-02 .383         1
  2      SPCO      0.20 1.00E-02 .153         2
   ANN FORBS       2.20  0.11                14        1.25    0.09    0.57   6.00
  4      CHEN      0.10 T          7.65E-02   1
  4      GIPU      0.20 1.00E-02 .153         2
  4      LEDE      1.30 6.50E-02 .995        13
  4      PLPA      0.60 3.00E-02 .459         6
     TOTAL              17.61     100.00              34.870                  167.44

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR		435.36
OPPO		28.36
PHHO		4.46
	Shrub Prod.	468.18
	Total	635.62

```
PRECIPITATION DATA
 RAIN GUAGE NO. 158   SHOSHO ANT     EXCL.2 AUGUST 16/71
OCT. 15 TO APR. 15 = 1.33
APR. 15 TO JULY 1  = 5.60
JULY 1 TO SEPT. 1  =  .25
SEPT. 1 TO OCT. 15 = 2.40
SEASON TOTAL       = 9.58
LONG TERM AVERAGE  = 9.58
```

**Production adjusted for utilization		168.77
		468.18
	Total Adjusted	636.95

```
        1011   SHOSHO ANT NO EXCL.4 AUGUST 26/71  INSIDE NATIVE

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.    PERCENT  ABS.     TOTAL  AVE.   WGT./  LBS**
CODE   NAME    TRANS  PER-    COMPO-   PLOT     WGT.   WGT.   UNIT   PER
               BASAL  CENT    SITION   FREQ.   GMS/20 /PLOT   BASAL  AC.
               AREA   BASAL            BASE    SQ.FT. OCCUR-  AREA
               PER-   AREA             20             RENCES
               CENT

  6   *ARTR     55.50 2.77                4
  6   *OPPO     25.50 1.27                6
  6   *PHHC      2.50 .125                2
   PER GRASS   106.20  5.31              18     34.60  1.92   0.33 166.14
  3    AGSM      3.50 .175      3.13     10      8.67  0.87   2.48  41.631
  3    BOGR     93.10 4.65      83.3     10     13.33  1.33   0.14  64.007
  3    POSE      1.00 5.00E-02 .895       2      0.40  0.20   0.40  1.9207
  3    SIHY      2.10 .105      1.88      2      2.41  1.20   1.15  11.572
  3    STCO      6.50 .325      5.82      2      9.79  4.89   1.51  47.009
   PER FORBS     2.00  0.10              10      4.59  0.46   2.29  22.04
  2    ALTE      0.40 2.00E-02 .358       4
  2    ERPU      0.10 T        8.95E-02   1
  2    SPCO      1.50 7.50E-02 1.34       7
   ANN FORBS     3.50  0.17              16      3.68  0.23   1.05  17.67
  4    CHEN      0.30 1.50E-02 .269       3
  4    CORA      0.20 1.00E-02 .179       2
  4    DEPI      0.10 T        8.95E-02   1
  4    LARE      0.10 T        8.95E-02   1
  4    LEDE      1.40 7.00E-02 1.25      14
  4    PLPA      1.40 7.00E-02 1.25      10
    TOTAL             9.76     100.00           42.870               205.85

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

       ARTR                                                          346.03
       OPPO                                                           35.76
                                                      Shrub Prod.    381.79
                                                            Total    587.64


PRECIPITATION DATA
 RAIN GUAGE NO. 158   SHUSHO ANT NO EXCL.4 AUGUST 26/71
OCT. 15 TO APR. 15  = 1.33
APR. 15 TO JULY 1   = 5.60
JULY 1 TO SEPT. 1   =  .25
SEPT. 1 TO OCT. 15  = 2.40
SEASON TOTAL        = 9.58
LONG TERM AVERAGE   = 9.58
```

**No utilization

1011 SHOSHO ANT SO EXCL.4 AUGUST 26/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PERCENT	AVE. PERCENT BASAL AREA	PERCENT COMPOSITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCURRENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	57.00	2.85		6				
6	*OPPO	31.00	1.55		5				
	PER GRASS	96.10	4.80		18	27.57	1.53	0.29	132.38
3	AGSM	1.20	6.00E-02	1.17	8	5.98	0.75	4.98	28.714
3	BOGR	93.50	4.67	91.0	13	20.64	1.59	0.22	99.107
3	POSE	0.80	4.00E-02	.779	4	0.25	0.06	0.31	1.2004
3	STCO	0.60	3.00E-02	.584	2	0.70	0.35	1.17	3.3612
	PER FORBS	0.40	0.02		4	1.12	0.28	2.80	5.38
2	SPCO	0.40	2.00E-02	.389	4				
	ANN FORBS	6.20	0.31		20	7.84	0.39	1.26	37.65
4	CHEN	0.70	3.50E-02	.682	3				
4	CORA	0.80	4.00E-02	.779	8				
4	DEPI	0.20	1.00E-02	.195	2				
4	LEDE	2.10	.105	2.04	17				
4	PLPA	2.40	.120	2.34	16				
	TOTAL		9.53	100.00		36.530			175.41

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	346.03
OPPO	35.76
Shrub Prod.	381.79
Total	587.64

PRECIPITATION DATA
RAIN GUAGE NO. 158 SHOSHO ANT SO EXCL.4 AUGUST 26/71
OCT. 15 TO APR. 15 = 1.33
APR. 15 TO JULY 1 = 5.60
JULY 1 TO SEPT. 1 = .25
SEPT. 1 TO OCT. 15 = 2.40
SEASON TOTAL = 9.58
LONG TERM AVERAGE = 9.58

**No utilization

```
        1011   SHOSHO ANT    EXCL.4 AUGUST 26/71  OUT    NATIVE

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT   ABS.     TOTAL   AVE.     WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-    PLOT     WGT.    WGT.     UNIT    PER
                BASAL   CENT    SITION    FREQ.    GMS/20  /PLOT    BASAL   AC.
                AREA    BASAL             BASE     SQ.FT.  OCCUR-   AREA
                PER-    AREA              20               RENCES
                CENT

  6    *ARTR    84.10 4.20                   5
  6    *OPPO    13.10 .655                   5
   PER GRASS    95.30  4.76                 18      26.75    1.49   0.28 128.45
  3    BOGR     89.10 4.45        87.1      15      20.95    1.40   0.24  100.60
  3    POSE      3.40 .170        3.32       6       1.55    0.26   0.46  7.4426
  3    STCO      2.80 .140        2.74       6       4.25    0.71   1.52  20.407
   PER FORBS     2.10  0.10                  9       5.30    0.59   2.52  25.45
  2    SPCO      2.10 .105        2.05       9
   ANN FORBS     4.90  0.24                 20      12.05    0.60   2.46  57.86
  4    CHEN      0.10 T            9.78E-02  1
  4    CORA      0.30 1.50E-02 .293          3
  4    LEDE      1.70 8.50E-02 1.66         17
  4    PLPA      2.80 .140        2.74      20
      TOTAL           9.97      100.00              44.100                  211.75

     * NOT COMPUTED IN PERCENT COMPOSITION
     T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR		289.15
OPPO		58.70
	Shrub Prod.	347.85
	Total	559.60

```
PRECIPITATION DATA
 RAIN GUAGE NO. 158   SHOSHO ANT     EXCL.4 AUGUST 26/71
OCT. 15 TO APR. 15 = 1.33
APR. 15 TO JULY 1  = 5.60
JULY 1 TO SEPT. 1  =  .25
SEPT. 1 TO OCT. 15 = 2.40
SEASON TOTAL       = 9.58
LONG TERM AVERAGE  = 9.58
```

**No utilization

1013 SHOSHO ANT NO EXCL 7 AUGUST 26/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	240.00	12.0		10				
6	*OPPO	25.00	1.25		4				
PER GRASS		56.10	2.80		19	40.28	2.12	0.72	193.41
3	AGSM	9.50	.475	16.5	18	19.15	1.06	2.02	91.952
3	BOGR	40.00	2.00	69.3	7	6.68	0.95	0.17	32.075
3	POSE	0.10	T	.173	1	0.11	0.11	1.10	.52819
3	SIHY	0.50	2.50E-02	.867	1	0.70	0.70	1.40	3.3612
3	STCO	6.00	.300	10.4	2	13.64	6.82	2.27	65.495
PER FORBS		0.30	0.01		3	0.47	0.16	1.57	2.26
2	ALTE	0.10	T	.173	1				
2	SPCO	0.20	1.00E-02	.347	2				
ANN FORBS		1.30	0.06		11	0.26	0.02	0.20	1.25
4	CHEN	0.10	T	.173	1				
4	GIPU	0.10	T	.173	1				
4	LEDE	1.00	5.00E-02	1.73	10				
4	PLPA	0.10	T	.173	1				
	TOTAL		16.13	100.00		41.010			196.92

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	329.47
OPPO	40.08
PHHO	8.16
Shrub Prod.	377.71
Total	574.63

PRECIPITATION DATA
RAIN GUAGE NO. 158 SHOSHO ANT NO EXCL 7 AUGUST 26/71
OCT. 15 TO APR. 15 = 1.33
APR. 15 TO JULY 1 = 5.60
JULY 1 TO SEPT. 1 = .25
SEPT. 1 TO OCT. 15 = 2.40
SEASON TOTAL = 9.58
LONG TERM AVERAGE = 9.58

**No utilization

```
      1013   SHOSHO ANT SO EXCL 7 AUGUST 26/71  INSIDE NATIVE

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT  PLANT   TOTAL   AVE.    PERCENT  ABS.    TOTAL  AVE.    WGT./  LBS **
CODE   NAME    TRANS   PER-    COMPO-   PLOT    WGT.   WGT.    UNIT   PER
               BASAL   CENT    SITION   FREQ.   GMS/20 /PLOT   BASAL  AC.
               AREA    BASAL            BASE    SQ.FT. OCCUR-  AREA
               PER-    AREA             20             RENCES
               CENT

  6    *ARTR   151.00 7.55                11
  6    *OPPC    29.00 1.45                 5
  6    *PHHC     3.00 .150                 1
   PER GRASS    72.40  3.62               20     46.31   2.32   0.64  222.37
  3    AGSM      7.80 .390        10.5    16     10.35   0.65   1.33   49.698
  3    BOGR     37.00 1.85        49.7     6      7.00   1.17   0.19   33.612
  3    POSE      2.60 .130        3.49     3      0.59   0.20   0.23   2.8330
  3    SIHY      7.00 .350        9.41     2      3.70   1.85   0.53   17.766
  3    STCO     18.00 .900        24.2     4     24.67   6.17   1.37   118.46
   PER FORBS     0.10  0.00                1      0.03   0.03   0.30    0.14
  2    SPCO      0.10 T           .134     1
   ANN FORBS     1.90  0.09               13      0.27   0.02   0.14    1.30
  4    GIPU      0.10 T           .134     1
  4    LEDE      1.20 6.00E-02 1.61       12
  4    PLPA      0.60 3.00E-02 .806        6
     TOTAL           12.87    100.00             46.610                223.81

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR		329.47
OPPO		40.08
PHHO		8.16
	Shrub Prod.	377.71
	Total	574.63

```
PRECIPITATION DATA
 RAIN GUAGE NO. 158   SHOSHO ANT SO EXCL 7 AUGUST 26/71
OCT. 15 TO APR. 15 = 1.33
APR. 15 TO JULY 1  = 5.60
JULY 1 TO SEPT. 1  =  .25
SEPT. 1 TO OCT. 15 = 2.40
SEASON TOTAL       = 9.58
LONG TERM AVERAGE  = 9.58
```

**No utilization

```
          1013    SHOSHO ANT     EXCL 7 AUGUST 26/71  OUT    NATIVE

                                 NUMBER PLOTS = 20
                                   PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.    TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-   PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION   FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL            BASE    SQ.FT.  OCCUR-  AREA
                PER-    AREA             20              RENCES
                CENT

  6    *ARTR    137.00 6.85                 8
  6    *OPPO     37.00 1.85                 7
   PER GRASS     92.60  4.63               18     34.16    1.90   0.37 164.03
  3     AGSM      6.80 .340       7.03     13     12.36    0.95   1.82  59.349
  3     BOGR     75.00 3.75       77.6      8     15.69    1.96   0.21  75.339
  3     ORHY      3.00 .150       3.10      1      4.18    4.18   1.39  20.071
  3     POSE      6.20 .310       6.41      8      0.95    0.12   0.15  4.5616
  3     STCO      1.60 8.00E-02 1.65        3      0.98    0.33   0.61  4.7057
   ANN FORBS      4.10  0.20               18      8.43    0.47   2.06  40.48
  4     DEPI      0.10 T          .103      1
  4     GIPU      0.40 2.00E-02 .414        4
  4     LEDE      1.90 9.50E-02 1.96       15
  4     PLPA      1.60 8.00E-02 1.65        8
  4     SAKA      0.10 T          .103      1
      TOTAL            13.53    100.00           42.590                 204.50

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	327.36
OPPO	59.04
PHHO	1.68
Shrub Prod.	388.08
Total	592.58

```
PRECIPITATION DATA
 RAIN GUAGE NO. 158   SHOSHO ANT    EXCL 7 AUGUST 26/71
OCT. 15 TO APR. 15 = 1.33
APR. 15 TO JULY 1  = 5.60
JULY 1 TO SEPT. 1  =  .25
SEPT. 1 TO OCT. 15 = 2.40
SEASON TOTAL       = 9.58
LONG TERM AVERAGE  = 9.58
```

**Production adjusted for utilization	206.04
	388.08
Total Adjusted	594.12

1014 SHOSHO ANT NO EXCL 8 AUGUST 26/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	116.00	5.80		8				
6	*OPPO	2.00	.100		1				
	PER GRASS	103.90	5.19		20	65.89	3.29	0.63	316.38
3	AGSM	18.20	.910	17.3	18	42.00	2.33	2.31	201.67
3	BOGR	74.00	3.70	70.3	7	18.41	2.63	0.25	88.399
3	POSE	8.20	.410	7.79	8	2.57	0.32	0.31	12.340
3	STCO	3.50	.175	3.33	3	2.91	0.97	0.83	13.973
	ANN FORBS	1.30	0.06		12	2.14	0.18	1.65	10.28
4	GIPU	0.10	T	9.51E-02	1				
4	LEDE	0.40	2.00E-02	.380	4				
4	PLPA	0.80	4.00E-02	.760	8				
	TOTAL		11.16	100.00		68.030			326.66

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	232.12
OPPO	26.78
Shrub Prod.	258.90
Total	585.56

PRECIPITATION DATA
RAIN GUAGE NO. 158 SHOSHO ANT NO EXCL 8 AUGUST 26/71
OCT. 15 TO APR. 15 = 1.33
APR. 15 TO JULY 1 = 5.60
JULY 1 TO SEPT. 1 = .25
SEPT. 1 TO OCT. 15 = 2.40
SEASON TOTAL = 9.58
LONG TERM AVERAGE = 9.58

**No utilization

```
        1014   SHOSHO ANT SO EXCL 8 AUGUST 26/71  INSIDE NATIVE

                                NUMBER PLOTS = 20
                                  PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT   ABS.    TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-    PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION    FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL             BASE    SQ.FT.  OCCUR-  AREA
                PER-    AREA              20              RENCES
                CENT

  6    *ARTR    78.00 3.90                 4
  6    *OPPO    37.00 1.85                 9
   PER GRASS    97.70  4.88               20      53.49    2.67   0.55 256.84
  3    AGSM      8.00 .400        8.04    16      22.81    1.43   2.85  109.53
  3    BOGR     78.00 3.90       78.4      9      20.91    2.32   0.27  100.40
  3    POSE      4.00 .200        4.02     5       0.89    0.18   0.22  4.2735
  3    STCO      7.70 .385        7.74     5       8.88    1.78   1.15  42.639
   PER FORBS     1.00  0.05                1       1.07    1.07   1.07    5.14
  2    ERPU      1.00 5.00E-02 1.01        1
   ANN FORBS     0.80  0.04                7       0.98    0.14   1.22    4.71
  4    GIPU      0.10 T         .101       1
  4    LEDE      0.20 1.00E-02 .201        2
  4    PLPA      0.50 2.50E-02 .503        5
     TOTAL            10.72    100.00             55.540                256.69

         * NOT COMPUTED IN PERCENT COMPOSITION
         T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

         ARTR                                                            232.12
         OPPO                                                             26.78
                                                          Shrub Prod.    258.90
                                                                Total    585.56


PRECIPITATION DATA
 RAIN GUAGE NO. 158   SHOSHO ANT SO EXCL 8 AUGUST 26/71
OCT. 15 TO APR. 15 = 1.33
APR. 15 TO JULY 1  = 5.60
JULY 1 TO SEPT. 1  =  .25
SEPT. 1 TO OCT. 15 = 2.40
SEASON TOTAL       = 9.58
LONG TERM AVERAGE  = 9.58

**Production adjusted for utilization                  Total adjusted    271.69
```

1014 SHOSFO ANT EXCL 8 AUGUST 26/71 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS ** PER AC.
6	*ARTR	112.00	5.60		9				
6	*OPPC	19.00	.950		5				
	PER GRASS	126.70	6.33		20	53.21	2.66	0.42	255.50
3	AGSM	12.80	.640	9.90	18	30.08	1.67	2.35	144.43
3	BUGR	93.00	4.65	71.9	8	15.87	1.98	0.17	76.203
3	POSE	12.70	.635	9.82	10	2.42	0.24	0.19	11.620
3	STCO	8.20	.410	6.34	6	4.84	0.81	0.59	23.240
	ANN FORBS	2.60	0.13		16	4.91	0.31	1.89	23.58
4	LEDE	0.60	3.00E-02	.464	6				
4	PLPA	2.00	.100	1.55	16				
	TOTAL		13.01	100.00		58.120			279.07

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	210.48
OPPO	53.56
PHHO	2.59
Shrub Prod.	266.63
Total	545.70

PRECIPITATION DATA
RAIN GUAGE NO. 158 SHOSHO ANT EXCL 8 AUGUST 26/71
OCT. 15 TO APR. 15 = 1.33
APR. 15 TO JULY 1 = 5.60
JULY 1 TO SEPT. 1 = .25
SEPT. 1 TO OCT. 15 = 2.40
SEASON TOTAL = 9.58
LONG TERM AVERAGE = 9.58

**Production adjusted for utilization

	280.93
	266.63
Total Adjusted	547.56

1015 SHOSHO ANT NO EXCL 9 AUGUST 26/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS ** PER AC.
6	*ARTR	132.00	6.60		8				
6	*OPPO	18.00	.900		7				
	PER GRASS	49.20	2.46		20	25.30	1.26	0.51	121.48
3	AGSM	8.10	.405	15.9	15	11.96	0.80	1.48	57.428
3	BOGR	27.20	1.36	53.3	6	4.58	0.76	0.17	21.992
3	CAEL	1.40	7.00E-02	2.75	6	3.14	0.52	2.24	15.077
3	POSE	8.50	.425	16.7	12	1.82	0.15	0.21	8.7391
3	SICO	4.00	.200	7.84	1	3.80	3.80	0.95	18.246
	PER FORBS	0.20	0.01		2	0.04	0.02	0.20	0.19
2	ALTE	0.10	T	.196	1				
2	SPCO	0.10	T	.196	1				
	ANN FORBS	1.60	0.08		12	0.16	0.01	0.10	0.77
4	LEDE	1.20	6.00E-02	2.35	12				
4	PLPA	0.40	2.00E-02	.784	4				
	TOTAL		10.05	100.00		25.500			122.44

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	253.53
OPPO	43.92
PHHO	5.18
Shrub Prod.	302.63
Total	425.07

PRECIPITATION DATA
RAIN GUAGE NO. 158 SHOSHO ANT NO EXCL 9 AUGUST 26/71
OCT. 15 TO APR. 15 = 1.33
APR. 15 TO JULY 1 = 5.60
JULY 1 TO SEPT. 1 = .25
SEPT. 1 TO OCT. 15 = 2.40
SEASON TOTAL = 9.58
LONG TERM AVERAGE = 9.58

**No utilization

1015 SHOSHO ANT SO EXCL 9 AUGUST 26/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	242.10	12.1		16				
6	*OPPO	8.50	.425		6				
6	*PHHO	2.50	.125		2				
PER GRASS		109.80	5.49		19	35.76	1.88	0.33	171.71
3	AGSM	9.40	.470	8.40	17	12.70	0.75	1.35	60.982
3	BOGR	76.10	3.80	68.0	6	10.58	1.76	0.14	50.802
3	POSE	4.30	.215	3.84	9	2.45	0.27	0.57	11.764
3	STCO	20.00	1.00	17.9	3	10.03	3.34	0.50	48.161
PER FORBS		0.50	0.02		5	0.52	0.10	1.04	2.50
2	ALTE	0.20	1.00E-02	.179	2				
2	SPCO	0.30	1.50E-02	.268	3				
ANN FORBS		1.60	0.08		13	0.51	0.04	0.32	2.45
4	LEDE	1.00	5.00E-02	.894	10				
4	PLPA	0.60	3.00E-02	.536	6				
	TOTAL		18.25	100.00		36.790			176.65

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR		253.53
OPPO		43.92
PHHO	s	5.18
	Shrub Prod.	302.63
	Total	425.07

PRECIPITATION DATA
RAIN GUAGE NO. 158 SHOSHO ANT SO EXCL 9 AUGUST 26/71
OCT. 15 TO APR. 15 = 1.33
APR. 15 TO JULY 1 = 5.60
JULY 1 TO SEPT. 1 = .25
SEPT. 1 TO OCT. 15 = 2.40
SEASON TOTAL = 9.58
LONG TERM AVERAGE = 9.58

**No utilization

```
        1015    SHOSHO ANT     EXCL 9 AUGUST 26/71   OUT     NATIVE

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.     TOTAL   AVE.     WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-   PLOT     WGT.    WGT.     UNIT    PER
                BASAL   CENT    SITION   FREQ.    GMS/20  /PLOT    BASAL   AC.
                AREA    BASAL            BASE     SQ.FT.  OCCUR-   AREA
                PER-    AREA             20               RENCES
                CENT

  6    *ARTR    203.00 10.1                12
  6    *OPPO      6.50 .325                 2
  6    *PHHO      3.00 .150                 2
   PER GRASS     41.40  2.07               18      27.28    1.52   0.66 130.99
  3    AGSM       8.70 .435        19.6    18      19.07    1.06   2.19   91.568
  3    BOGR      25.50 1.27        57.6     5       5.87    1.17   0.23   28.186
  3    POSE       6.70 .335        15.1     9       2.17    0.24   0.32   10.420
  3    STCO       0.50 2.50E-02  1.13       1       0.17    0.17   0.34   .81629
   PER FORBS      0.60  0.03                6       0.73    0.12   1.22     3.51
  2    SPCO       0.50 2.50E-02  1.13       5
  2    UMB        0.10 T           .226     1
   ANN FORBS      2.30  0.11               17       1.59    0.09   0.69     7.63
  4    LEDE       1.60 8.00E-02  3.61      16
  4    PLPA       0.70 3.50E-02  1.58       7
      TOTAL           12.84     100.00             29.600                 142.13

          * NOT COMPUTED IN PERCENT COMPOSITION
          T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	299.90
OPPO	17.13
PHHO	16.84
Shrub Prod.	333.87
Total	476.00

```
PRECIPITATION DATA
 RAIN GUAGE NO. 158   SHOSHO ANT     EXCL 9 AUGUST 26/71
OCT. 15 TO APR. 15 = 1.33
APR. 15 TO JULY 1  = 5.60
JULY 1 TO SEPT. 1  =  .25
SEPT. 1 TO OCT. 15 = 2.40
SEASON TOTAL       = 9.58
LONG TERM AVERAGE  = 9.58
```

**No utilization

1017 SHOSHO ANT NO EXC 11 AUGUST 26/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	62.10	3.10		11				
6	*PHHO	4.00	.200		1				
PER GRASS		44.30	2.21		18	27.97	1.55	0.63	134.30
3	AGSM	8.30	.415	17.3	17	11.79	0.69	1.42	56.612
3	BOGR	27.10	1.35	56.6	6	7.28	1.21	0.27	34.956
3	POSE	1.80	9.00E-02	3.76	6	0.60	0.10	0.33	2.8810
3	STCO	7.10	.355	14.8	3	8.30	2.77	1.17	39.854
PER FORBS		1.00	0.05		7	0.99	0.14	0.99	4.75
2	ALTE	0.40	2.00E-02	.835	4				
2	SPCO	0.60	3.00E-02	1.25	6				
ANN FORBS		2.60	0.13		13	1.03	0.08	0.40	4.95
4	CORA	0.10	T	.209	1				
4	DEPI	0.10	T	.209	1				
4	LEDE	0.80	4.00E-02	1.67	8				
4	PLPA	1.60	8.00E-02	3.34	12				
	TOTAL		5.70	100.00		29.990			144.00

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	215.28
OPPO	25.44
Shrub Prod.	240.72
Total	384.72

PRECIPITATION DATA
RAIN GUAGE NO. 158 SHOSHO ANT NO EXC 11 AUGUST 26/71
OCT. 15 TO APR. 15 = 1.33
APR. 15 TO JULY 1 = 5.60
JULY 1 TO SEPT. 1 = .25
SEPT. 1 TO OCT. 15 = 2.40
SEASON TOTAL = 9.58
LONG TERM AVERAGE = 9.58

**No utilization

1017 SHOSHO ANT SO EXC 11 AUGUST 26/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS ** PER AC.
6	*ARTR	172.60	8.63		11				
6	*OPPO	20.00	1.00		1				
	PER GRASS	55.90	2.79		18	27.88	1.55	0.50	133.87
3	AGSM	1.40	7.00E-02	2.30	6	5.82	0.97	4.16	27.946
3	BOGR	49.60	2.48	81.3	13	15.32	1.18	0.31	73.562
3	POSE	1.20	6.00E-02	1.97	4	0.10	0.02	0.08	.48017
3	SIHY	1.10	5.50E-02	1.80	2	3.00	1.50	2.73	14.405
3	STCO	2.60	.130	4.26	3	3.64	1.21	1.40	17.478
	PER FORBS	1.50	0.07		6	4.28	0.71	2.85	20.55
2	ALTE	0.60	3.00E-02	.984	2				
2	SPCO	0.90	4.50E-02	1.48	5				
	ANN FORBS	3.60	0.18		16	9.35	0.58	2.60	44.90
4	CORA	0.30	1.50E-02	.492	3				
4	DEPI	0.10	T	.164	1				
4	LEDE	0.80	4.00E-02	1.31	8				
4	PLPA	2.40	.120	3.93	16				
	TOTAL		12.68	100.00		41.510			199.32

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	215.28
OPPO	25.44
Shrub Prod.	240.72
Total	384.72

PRECIPITATION DATA
RAIN GUAGE NO. 158 SHOSHO ANT SO EXC 11 AUGUST 26/71
OCT. 15 TO APR. 15 = 1.33
APR. 15 TO JULY 1 = 5.60
JULY 1 TO SEPT. 1 = .25
SEPT. 1 TO OCT. 15 = 2.40
SEASON TOTAL = 9.58
LONG TERM AVERAGE = 9.58

**No utilization

1017 SHOSHO ANT EXC 11 AUGUST 26/71 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS ** PER AC.
6	*ARTR	48.10	2.40		8				
6	*OPPO	18.00	.900		4				
	PER GRASS	155.60	7.78		20	45.69	2.28	0.29	219.39
3	AGSM	5.70	.285	3.56	14	11.69	0.83	2.05	56.132
3	BOGR	137.60	6.88	86.0	12	21.65	1.80	0.16	103.96
3	ORHY	3.10	.155	1.94	2	6.91	3.45	2.23	33.180
3	POSE	6.70	.335	4.19	8	3.16	0.39	0.47	15.173
3	STCO	2.50	.125	1.56	2	2.28	1.14	0.91	10.948
	PER FORBS	0.20	0.01		2	0.31	0.15	1.55	1.49
2	ALTE	0.10	T	6.25E-02	1				
2	SPCO	0.10	T	6.25E-02	1				
	ANN FORBS	4.20	0.21		20	9.22	0.46	2.20	44.27
4	CORA	0.50	2.50E-02	.313	5				
4	LEDE	0.50	2.50E-02	.313	5				
4	PLPA	3.20	.160	2.00	20				
	TOTAL		11.30	100.00		55.220			265.15

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	281.47
OPPO	48.00
Shrub Prod.	329.47
Total	594.62

PRECIPITATION DATA
RAIN GUAGE NO. 158 SHOSHO ANT EXC 11 AUGUST 26/71
OCT. 15 TO APR. 15 = 1.33
APR. 15 TO JULY 1 = 5.60
JULY 1 TO SEPT. 1 = .25
SEPT. 1 TO OCT. 15 = 2.40
SEASON TOTAL = 9.58
LONG TERM AVERAGE = 9.58

**No utilization

2009 SMILO EXCL JULY 21/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	323.00	16.1		13				
PER GRASS		6.90	0.34		17	9.34	0.55	1.35	44.85
3	AGSM	1.10	5.50E-02	14.9	11	4.69	0.43	4.26	22.520
3	POSE	4.10	.205	55.4	12	1.72	0.14	0.42	8.2589
3	SIHY	1.20	6.00E-02	16.2	4	1.95	0.49	1.62	9.3633
3	STCO	0.50	2.50E-02	6.76	1	0.98	0.98	1.96	4.7057
ANN FORBS		0.50	0.02		4	0.19	0.05	0.38	0.91
4	DEPI	0.20	1.00E-02	2.70	2				
4	PLSP	0.30	1.50E-02	4.05	3				
TOTAL			16.52	100.00		9.5300			45.760

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	132.62
OPPO	14.92
Shrub Prod.	147.54
Total	193.30

PRECIPITATION DATA
RAIN GUAGE NO. 36 SMILO EXCL JULY 21/71
OCT. 15 TO APR. 15 = 2.75
APR. 15 TO JULY 1 = 3.42
JULY 1 TO SEPT. 1 = .10
SEPT. 1 TO OCT. 15 = 1.29
SEASON TOTAL = 7.56
LONG TERM AVERAGE = 8.21

**No utilization

```
        2009    SMILO   EXCL           AUGUST 21/71   OUT     NATIVE

                        NUMBER PLOTS = 20
                          PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT   ABS.     TOTAL   AVE.    WGT./   LBS**
CODE    NAME    TRANS   PER-    COMPO-    PLOT     WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION    FREQ.    GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL             BASE     SQ.FT.  OCCUR-  AREA
                PER-    AREA              20               RENCES
                CENT

 6    *ARTR    123.00 6.15                 8
 6    *OPPO      8.00 .400                 2
  PER GRASS      6.80  0.34               19      7.37    0.39    1.08   35.39
 3    AGSM       2.00 .100       18.3     12      4.59    0.38    2.29   22.040
 3    POSE       3.80 .190       34.9     17      2.18    0.13    0.57   10.468
 3    SIHY       0.50 2.50E-02 4.59        1      0.21    0.21    0.42   1.0084
 3    STCO       0.50 2.50E-02 4.59        1      0.39    0.39    0.78   1.8727
  PER FORBS      3.00  0.15                1      6.02    6.02    2.01   28.91
 2    MAGL       3.00 .150       27.5      1
  ANN GRASS      0.40  0.02                4      0.04    0.01    0.10    0.19
 5    FEOC       0.40 2.00E-02 3.67        4
  ANN FORBS      0.70  0.03                7      0.31    0.04    0.44    1.49
 4    PLSP       0.70 3.50E-02 6.42        7
      TOTAL           7.09     100.00            13.740                  65.975

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
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ARTR	164.07
OPPO	4.08
PHHO	3.41
Shrub Prod.	171.56
Total	237.54

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PRECIPITATION DATA
 RAIN GUAGE NO. 36    SMILO  EXCL         AUGUST 21/71
OCT. 15 TO APR. 15  = 2.75
APR. 15 TO JULY 1   = 3.42
JULY 1 TO SEPT. 1   =  .10
SEPT. 1 TO OCT. 15  = 1.29
SEASON TOTAL        = 7.56
LONG TERM AVERAGE   = 8.21
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**No utilization

2009 SMILC EXCL JULY 21/71 INSIDE SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*OPPO	11.10	.555		4				
	PER GRASS	34.30	1.71		17	48.89	2.88	1.43	234.75
3	AGSM	6.00	.300	7.94	7	11.58	1.65	1.93	55.604
3	BOGR	11.50	.575	15.2	3	7.52	2.51	0.65	36.109
3	POSE	2.30	.115	3.04	6	1.20	0.20	0.52	5.7620
3	SIHY	1.00	5.00E-02	1.32	1	1.22	1.22	1.22	5.8581
3	STCO	13.50	.675	17.9	7	27.37	3.91	2.03	131.42
	ANN GRASS	37.30	1.86		20	60.38	3.02	1.62	289.93
5	BRTE	36.10	1.80	47.8	20				
5	FEOC	1.20	6.00E-02	1.59	12				
	ANN FORBS	4.00	0.20		19	12.99	0.68	3.25	62.37
4	CHEN	1.10	5.50E-02	1.46	7				
4	DEPI	1.90	9.50E-02	2.51	19				
4	LARE	0.10	T	.132	1				
4	PLSP	0.40	2.00E-02	.529	4				
4	SAKA	0.10	T	.132	1				
4	SIAL	0.40	2.00E-02	.529	4				
	TOTAL		4.33	100.00		122.26			587.05

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	65.38
OPPO	17.14
Shrub Prod	82.52
Total	669.57

PRECIPITATION DATA
RAIN GUAGE NO. 36 SMILO EXCL JULY 21/71
OCT. 15 TO APR. 15 = 2.75
APR. 15 TO JULY 1 = 3.42
JULY 1 TO SEPT. 1 = .10
SEPT. 1 TO OCT. 15 = 1.29
SEASON TOTAL = 7.56
LONG TERM AVERAGE = 8.21

**No utilization

2009 SMILC EXCL AUGUST 21/71 OUT SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*OPPO	3.00	.150		1				
	PER GRASS	27.00	1.35		15	41.90	2.79	1.55	201.19
3	AGSM	2.30	.115	4.51	11	14.79	1.34	6.43	71.017
3	BOGR	10.00	.500	19.6	1	10.38	10.38	1.04	49.842
3	POSE	10.70	.535	21.0	9	8.59	0.95	0.80	41.247
3	STCO	4.00	.200	7.84	1	8.14	8.14	2.03	39.086
	ANN GRASS	17.10	0.85		16	41.26	2.58	2.41	198.12
5	BRTE	13.80	.690	27.1	14				
5	FEOC	3.30	.165	6.47	14				
	ANN FORBS	6.90	0.34		20	54.92	2.75	7.96	263.71
4	CHEN	0.50	2.50E-02	.980	5				
4	DEPI	1.20	6.00E-02	2.35	12				
4	LARE	1.30	6.50E-02	2.55	9				
4	MATA	0.10	T	.196	1				
4	PLSP	1.00	5.00E-02	1.96	10				
4	SAKA	2.50	.125	4.90	17				
4	SIAL	0.30	1.50E-02	.588	3				
	TOTAL		2.70	100.00		138.08			663.02

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	3.50
OPPO	54.43
Shrub Prod.	57.93
Total	720.95

PRECIPITATION DATA
RAIN GUAGE NO. 36 SMILO EXCL AUGUST 21/71
OCT. 15 TO APR. 15 = 2.75
APR. 15 TO JULY 1 = 3.42
JULY 1 TO SEPT. 1 = .10
SEPT. 1 TO OCT. 15 = 1.29
SEASON TOTAL = 7.56
LONG TERM AVERAGE = 8.21

**No utilization

1005 SWEET WATER EXCL AUGUST 2/71 INSIDE ARNO

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS ** PER AC.
6	*ARHO	2.00	.100		1				
6	*ARNO	202.60	10.1		13				
6	*CHVI	4.00	.200		3				
6	*PHHO	6.70	.335		6				
6	*TECA	10.10	.505		5				
	PER GRASS	14.20	0.71		15	8.74	0.58	0.62	41.97
3	AGSM	1.30	6.50E-02	5.53	5	1.00	0.20	0.77	4.8017
3	KOCR	4.10	.205	17.4	4	2.00	0.50	0.49	9.6034
3	STCO	8.80	.440	37.4	11	5.74	0.52	0.65	27.562
	PER FORBS	8.00	C.40		5	7.61	1.52	0.95	36.54
2	ANRO	1.00	5.00E-02	4.26	1				
2	AST	1.50	7.50E-02	6.38	2				
2	EROV	5.50	.275	23.4	2				
	ANN FORBS	1.30	0.06		5	4.74	0.95	3.65	22.76
4	LIRU	1.30	6.50E-02	5.53	5				
	TOTAL		12.44	100.00		21.090			101.27

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARHO	2.88
ARFR	.96
ARNO	127.58
ARTR	65.71
CHNA	1.15
CHVI	26.54
EROV	1.72
OPPO	1.34
PHHO	14.64
TECA	35.71
Shrub Prod.	278.23
Total	379.50

PRECIPITATION DATA
RAIN GUAGE NO. 11 SWEET WATER EXCL AUGUST 2/71
OCT. 15 TO APR. 15 = 2.03
APR. 15 TO JULY 1 = 4.44
JULY 1 TO SEPT. 1 = .90
SEPT. 1 TO OCT. 15 = .70
SEASON TOTAL = 8.07
LONG TERM AVERAGE = 8.01

**No utilization

```
          1005   SWEET  WATER  EXCL   AUGUST 2/71   OUTSID ARNO

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT  PLANT  TOTAL  AVE.   PERCENT  ABS.   TOTAL  AVE.   WGT./  LBS **
CODE   NAME   TRANS  PER-   COMPO-   PLOT   WGT.   WGT.   UNIT   PER
              BASAL  CENT   SITION   FREQ.  GMS/20 /PLOT  BASAL  AC.
              AREA   BASAL           BASE   SQ.FT. OCCUR- AREA
              PER-   AREA            20            RENCES
              CENT

  6    *ARNO  240.00 12.0               9
  6    *ARTR   10.00 .500               1
  6    *CHVI   17.10 .855               3
  6    *TECA    9.00 .450               2
   PER GRASS   47.20  2.36             19     33.61   1.77   0.71  161.38
  3    AGSM     1.00 5.00E-02 2.00      1      1.63   1.63   1.63   7.8268
  3    CAEL     0.20 1.00E-02 .399      2      0.29   0.14   1.45   1.3925
  3    CAFI    23.00 1.15     45.9      5      6.29   1.26   0.27  30.203
  3    KOCR     3.00 .150     5.99      9      4.10   0.46   1.37  19.687
  3    POSE     2.60 .130     5.19      4      0.87   0.22   0.33   4.1775
  3    STCO    17.40 .870     34.7     17     20.43   1.20   1.17  98.099
   PER FORBS    2.80  0.14              7      5.91   0.84   2.11  28.38
  2    AST      0.20 1.00E-02 .399      2
  2    EROV     1.00 5.00E-02 2.00      2
  2    MACA     0.50 2.50E-02 .998      1
  2    PSTE     1.10 5.50E-02 2.20      3
   ANN FORBS    0.10  0.00              1      0.15   0.15   1.50    0.72
  4    ARA      0.10 T         .200     1
      TOTAL           16.31   100.00          39.670                190.48

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
        ARHO                                                          4.32
        ARNO                                                        100.89
        ARTR                                                        243.16
        CHVI                                                         46.89
        EROV                                                           .82
        LEPU                                                          3.74
        OPPO                                                          1.39
        PHHO                                                          7.29
        TECA                                                          9.79
PRECIPITATION DATA                                     Shrub Prod.  418.29
 RAIN GUAGE NO. 11    SWEET  WATER  EXCL   AUGUST 2/71
OCT. 15 TO APR. 15 = 2.03                                    Total  608.77
APR. 15 TO JULY 1  = 4.44
JULY 1 TO SEPT. 1  =  .90
SEPT. 1 TO OCT. 15 =  .70
SEASON TOTAL       = 8.07
LONG TERM AVERAGE  = 8.01
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**No utilization

1005 SWEET WATER EXCL AUGUST 2/71 INSIDE ARTR

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARHO	1.10	5.50E-02		3				
6	*ARNO	30.00	1.50		1				
6	*ARTR	90.00	4.50		3				
6	*CHIV	4.20	.210		3				
6	*LEPU	15.00	.750		1				
6	*OPPO	0.50	2.50E-02		1				
6	*PHHO	23.60	1.18		8				
PER GRASS		75.80	3.79		20	42.81	2.14	0.56	205.56
3	AGSM	0.90	4.50E-02	1.16	5	1.40	0.28	1.56	6.7224
3	CAEL	0.80	4.00E-02	1.03	4	1.08	0.27	1.35	5.1858
3	CAFI	17.50	.875	22.5	7	8.32	1.19	0.48	39.950
3	KOCR	31.20	1.56	40.1	12	11.99	1.00	0.38	57.572
3	POSE	8.50	.425	10.9	14	1.93	0.14	0.23	9.2673
3	STCO	16.90	.845	21.7	17	18.09	1.06	1.07	86.863
PER FORBS		1.60	0.08		3	2.70	0.90	1.69	12.96
2	ALTE	0.10	T	.128	1				
2	AST	1.00	5.00E-02	1.28	1				
2	EROV	0.50	2.50E-02	.642	1				
ANN FORBS		0.50	0.02		5	0.59	0.12	1.18	2.83
4	ARA	0.50	2.50E-02	.642	5				
	TOTAL		12.11	100.00		46.100			221.36

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARFR	1.73
ARHO	10.46
ARNO	7.39
ARTR	298.56
CHVI	55.58
VEPU	.14
OPPO	1.58
PHHO	41.18
TECA	1.34
Shrub Prod.	417.96
Total	639.32

PRECIPITATION DATA
RAIN GUAGE NO. 11 SWEET WATER EXCL AUGUST 2/71
OCT. 15 TO APR. 15 = 2.03
APR. 15 TO JULY 1 = 4.44
JULY 1 TO SEPT. 1 = .90
SEPT. 1 TO OCT. 15 = .70
SEASON TOTAL = 8.07
LONG TERM AVERAGE = 8.01

**No utilization

1005 SWEET WATER EXCL AUGUST 2/71 OUTSID ARTR

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	99.60	4.98		8				
6	*CHVI	1.30	6.50E-02		5				
PER GRASS		84.70	4.23		19	31.98	1.68	0.38	153.56
3	AGSM	6.50	.325	7.50	11	5.12	0.47	0.79	24.585
3	CAEL	2.80	.140	3.23	12	2.66	0.22	0.95	12.773
3	CAFI	43.20	2.16	49.8	14	9.25	0.66	0.21	44.416
3	KOCR	14.70	.735	17.0	10	5.84	0.58	0.40	28.042
3	ORHY	1.00	5.00E-02	1.15	2	0.76	0.38	0.76	3.6493
3	POSE	8.40	.420	9.69	14	0.94	0.07	0.11	4.5136
3	STCO	8.10	.405	9.34	8	7.41	0.93	0.91	35.581
PER FORBS		1.70	0.08		4	5.47	1.37	3.22	26.27
2	PSTE	1.60	8.00E-02	1.85	4				
2	SPCO	0.10	T	.115	1				
ANN FORBS		0.30	0.01		3	0.66	0.22	2.20	3.17
4	ARA	0.20	1.00E-02	.231	2				
4	CAMI	0.10	T	.115	1				
TOTAL			9.38	100.00		38.110			182.99

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARHO	4.03
ARNO	1.68
ARTR	426.24
CHVI	44.49
EROV	6.76
LEPU	.76
OPPO	2.16
PHHO	28.75
TECA	1.34
Shrub Prod	516.21
Total	699.20

PRECIPITATION DATA
RAIN GUAGE NO. 11 SWEET WATER EXCL AUGUST 2/71
OCT. 15 TO APR. 15 = 2.03
APR. 15 TO JULY 1 = 4.44
JULY 1 TO SEPT. 1 = .90
SEPT. 1 TO OCT. 15 = .70
SEASON TOTAL = 8.07
LONG TERM AVERAGE = 8.01

**No utilization

```
          2010   TWO    MILE    HILL    JULY    15/71   INSIDE NATIVE

                          NUMBER OF PLOTS
                    COVER = 200, PRODUCTION = 20
                     PLOT SIZE 1 FT. X 10 FT.
PLANT  PLANT   TOTAL  AVE.    PERCENT  ABS.    TOTAL   AVE.    WGT./   LBS**
CODE   NAME    TRANS  PER-    COMPO-   PLOT    WGT.    WGT.    UNIT    PER
               BASAL  CENT    SITION   FREQ.   GMS/    /PLOT   BASAL   AC.
               AREA   BASAL            BASE    200     OCCUR-  AREA
               PER-   AREA             200     SQ.FT.  RENCES
               CENT

  6   OPPO      32.0  .160                  5
  PER GRASS     95.6  .478                 53   137.80    2.60    1.44   66.167
  3   ORHY       1.4  T          .564       5     3.61    0.72    2.58   1.7334
  3   POSE      51.6  .258       20.8      53    22.29    0.42    0.43   10.703
  3   SIHY      42.6  .213       17.1      27   111.90    4.14    2.63   53.731
  PER FORBS     6.80  0.03                 13    11.61    0.89    1.71    5.57
  2   ALTE       1.2  T          .483      12
  2   LERE       0.1  T          4.03E-02   1
  2   MACA       0.9  T          .362       9
  2   OECO       4.4  2.20E-02   1.77      13
  2   UMB        0.2  T          8.05E-02   2
  ANN GRASS    38.20  0.19                162   132.09    0.82    3.46   63.43
  5   BRTE      38.2  .191       15.4     162
  ANN FORBS   107.80  0.54                196   340.81    1.74    3.16  163.65
  4   CAMI       1.0  T          .403      10
  4   DEPI       1.3  T          .523      13
  4   HEAN       3.7  1.85E-02   1.49      33
  4   LARE      78.5  .392       31.6     196
  4   LEDE      23.1  .115       9.30     155
  4   PLSP       0.2  T          8.05E-02   2
      TOTAL           1.4        100.00         622.310                  298.814

         * NOT COMPUTED IN PERCENT COMPOSITION
         T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
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ARTR 4.42
OPPO 14.83
PHHO .48

Shrub Prod. 19.73

Total 318.544

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PRECIPITATION DATA
 RAIN GUAGE NO. 39   TWO    MILE    HILL    JULY    15/71
OCT. 15 TO APR. 15 =  3.07
APR. 15 TO JULY 1  =  4.22
JULY 1 TO SEPT. 1  =   .49
SEPT. 1 TO OCT. 15 =  2.73
SEASON TOTAL       = 10.51
LONG TERM AVERAGE  = 10.21
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**No utilization

2010 TWO MILE HILL JULY 15/71 OUTSID NATIVE

NUMBER OF PLOTS
COVER = 200, PRODUCTION = 20
PLOT SIZE 1 FT. X 10 FT.

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 200	TOTAL WGT. GMS/ 200 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	OPPO	23.0	.115		5				
1	ATNU	3086.3	15.4	94.8	147	656.33	4.46	0.21	315.15
	PER GRASS	39.7	.198		34	25.55	0.75	0.64	12.268
3	ORHY	0.5	T	1.54E-02	1	1.15	1.15	2.30	.55219
3	POSE	21.7	.108	.667	34	7.22	0.21	0.33	3.4668
3	SIHY	17.5	8.75E-02	.538	17	17.18	1.01	0.98	8.2493
	PER FORBS	5.60	0.03		31	6.50	0.21	1.16	3.12
2	ALTE	0.4	T	1.23E-02	4				
2	OECA	0.5	T	1.54E-02	1				
2	MACA	4.7	2.35E-02	.144	31				
	ANN FORBS	109.70	0.55		200	357.48	1.79	3.26	171.65
4	CAMI	0.1	T	T	1				
4	DEPI	0.1	T	T	1				
4	HEAN	4.9	2.45E-02	.151	45				
4	LARE	88.2	.441	2.71	200				
4	LEDE	16.4	8.20E-02	.504	124				
	ANN GRASS	13.40	0.07		106	13.55	0.13	1.01	6.51
5	BRTE	13.4	6.70E-02	.412	106				
	TOTAL		16.4	100.00		1059.41			508.696

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	4.42
OPPO	9.17
PHHO	.53
Shrub Prod.	14.12
Total	522.816

PRECIPITATION DATA
RAIN GUAGE NO. 39 TWO MILE HILL JULY 15/71
OCT. 15 TO APR. 15 = 3.07
APR. 15 TO JULY 1 = 4.22
JULY 1 TO SEPT. 1 = .49
SEPT. 1 TO OCT. 15 = 2.73
SEASON TOTAL =10.51
LONG TERM AVERAGE =10.21

**No utilization

1006 UPPER GOVT DRAW AUGUST 19/71 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	215.50	10.8		13				
6	*OPPO	3.50	.175		3				
6	*PHHO	11.60	.580		12				
PER GRASS		34.10	1.70		20	61.45	3.07	1.80	295.06
3	AGSM	14.30	.715	40.9	19	40.65	2.14	2.84	195.19
3	KOCR	9.40	.470	26.9	6	13.05	2.17	1.39	62.662
3	POSE	6.40	.320	18.3	12	3.21	0.27	0.50	15.413
3	STCO	4.00	.200	11.4	2	4.54	2.27	1.13	21.800
ANN FORBS		0.90	0.04		4	0.82	0.20	0.91	3.94
4	CHEN	0.10	T	.286	1				
4	CRE	0.50	2.50E-02	1.43	1				
4	LEDE	0.10	T	.286	1				
4	PLSP	0.20	1.00E-02	.571	2				
	TOTAL		13.28	100.00		62.270			299.00

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	259.82
CHVI	.29
OPPO	4.37
PHHO	14.45
Shrub Prod.	278.93
Total	577.93

PRECIPITATION DATA
RAIN GUAGE NO. 9 UPPER GOVT DRAW AUGUST 19/71
OCT. 15 TO APR. 15 = 1.67
APR. 15 TO JULY 1 = 6.34
JULY 1 TO SEPT. 1 = .39
SEPT. 1 TO OCT. 15 = 2.42
SEASON TOTAL = 10.92
LONG TERM AVERAGE = 8.41

**No utilization

1006 UPPER GOVT DRAW AUGUST 19/71 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	90.50	4.52		10				
6	*PHHO	4.60	.230		7				
	PER GRASS	35.70	1.78		20	37.09	1.85	1.04	178.09
3	AGSM	12.50	.625	32.6	20	24.78	1.24	1.98	118.99
3	KOCR	2.60	.130	6.77	4	1.20	0.30	0.46	5.7620
3	POSE	20.60	1.03	53.6	19	11.11	0.58	0.54	53.347
	PER FORBS	1.10	0.05		6	0.96	0.16	0.87	4.61
2	ERPU	0.30	1.50E-02	.781	3				
2	SPCO	0.80	4.00E-02	2.08	4				
	ANN FORBS	1.60	0.08		16	1.90	0.12	1.19	9.12
4	LEDE	0.10	T	.260	1				
4	PLSP	1.50	7.50E-02	3.91	15				
	TOTAL		6.67	100.00		39.950			191.83

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR		244.70
OPPO		2.69
PHHO		20.93
	Shrub Prod.	268.32
	Total	460.15

PRECIPITATION DATA
RAIN GUAGE NO. 9 UPPER GOVT DRAW AUGUST 19/71
OCT. 15 TO APR. 15 = 1.67
APR. 15 TO JULY 1 = 6.34
JULY 1 TO SEPT. 1 = .39
SEPT. 1 TO OCT. 15 = 2.42
SEASON TOTAL =10.92
LONG TERM AVERAGE = 8.41

**Production adjusted for utilization		194.62
		268.32
	Total Adjusted	462.94

1006 UPPER GOVT DRAW AUGUST 19/71 INSIDE SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS ** PER AC.
6	*ARTR	17.00	.850		2				
6	*PHHO	4.00	.200		2				
	PER GRASS	78.80	3.94		20	150.24	7.51	1.91	721.41
3	AGSM	20.60	1.03	24.4	16	69.54	4.35	3.38	333.91
3	KOCR	13.60	.680	16.1	9	35.28	3.92	2.59	169.40
3	POSE	7.60	.380	8.99	14	7.27	0.52	0.96	34.908
3	STCO	37.00	1.85	43.8	9	38.15	4.24	1.03	183.18
	PER FORBS	0.60	0.03		1	0.34	0.34	0.57	1.63
2	ERPU	0.50	2.50E-02	.592	1				
2	UMB	0.10	T	.118	1				
	ANN GRASS	5.00	0.25		15	18.59	1.24	3.72	89.26
5	BRCO	3.40	.170	4.02	13				
5	BRTE	1.60	8.00E-02	1.89	7				
	ANN FORBS	0.10	0.00		1	0.01	0.01	0.10	0.05
4	PLSP	0.10	T	.118	1				
	TOTAL		5.27	100.00		169.18			812.35

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	3.02
OPPO	1.63
PHHO	1.63
Shrub Prod.	6.28
Total	818.63

PRECIPITATION DATA
RAIN GUAGE NO. 9 UPPER GOVT DRAW AUGUST 19/71
OCT. 15 TO APR. 15 = 1.67
APR. 15 TO JULY 1 = 6.34
JULY 1 TO SEPT. 1 = .39
SEPT. 1 TO OCT. 15 = 2.42
SEASON TOTAL = 10.92
LONG TERM AVERAGE = 8.41

**No utilization

1006 UPPER GOVT DRAW AUGUST 19/71 OUT SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PERCENT	AVE. PERCENT BASAL AREA	PERCENT COMPOSITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCURRENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*ARTR	24.00	1.20		2				
	PER GRASS	59.90	2.99		20	50.07	2.50	0.84	240.42
3	AGSM	10.90	.545	17.8	20	22.11	1.11	2.03	106.17
3	KOCR	5.50	.275	8.96	7	3.09	0.44	0.56	14.837
3	POSE	36.00	1.80	58.6	20	19.19	0.96	0.53	92.144
3	STCO	7.50	.375	12.2	5	5.68	1.14	0.76	27.274
	PER FORBS	0.70	0.03		3	1.07	0.36	1.53	5.14
2	SPCO	0.70	3.50E-02	1.14	3				
	ANN GRASS	0.10	0.00		1	0.04	0.04	0.40	0.19
5	BRTE	0.10	T	.163	1				
	ANN FORBS	0.70	0.03		7	0.19	0.03	0.27	0.91
4	PLSP	0.70	3.50E-02	1.14	7				
	TOTAL		4.27	100.00		51.370			246.66

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	13.39
PHHO	10.27
Shrub Prod.	23.66
Total	270.32

PRECIPITATION DATA
RAIN GUAGE NO. 9 UPPER GOVT DRAW AUGUST 19/71
OCT. 15 TO APR. 15 = 1.67
APR. 15 TO JULY 1 = 6.34
JULY 1 TO SEPT. 1 = .39
SEPT. 1 TO OCT. 15 = 2.42
SEASON TOTAL =10.92
LONG TERM AVERAGE = 8.41

**Production adjusted for utilization

	272.04
	23.66
Total Adjusted	295.70

2006 WEST PASTUR EXCL JULY 8/71 INSIDE NATIVE

NUMBER OF PLOTS
COVER = 200, PRODUCTION = 20
PLOT SIZE 1 FT. X 10 FT.

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 200	TOTAL WGT. GMS/ 200 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS ** PER AC.
6	*OPPO	279.5	1.40		58				
1	ARPE	40.5	.202	2.94	14	25.10	1.79	0.62	12.052
1	ARSP	120.0	.600	8.70	40	65.69	1.64	0.55	31.542
1	ATNU	889.6	4.45	64.5	93	544.94	5.86	0.61	261.66
	PER GRASS	317.7	1.59		43	345.68	8.04	1.09	165.98
3	ORHY	49.2	.246	3.57	37	81.93	2.21	1.67	39.340
3	POSE	71.2	.356	5.16	37	45.05	1.22	0.63	21.632
3	SIHY	152.5	.762	11.1	37	199.96	5.40	1.31	96.015
3	SPCR	44.8	.224	3.25	43	18.74	0.44	0.42	8.9984
	PER FORBS	3.30	0.02		10	6.00	0.60	1.82	2.88
2	ALTE	1.8	T	.131	10				
2	MUDI	1.5	T	.109	7				
	ANN FORBS	8.10	0.04		32	8.71	0.27	1.08	4.18
4	CHEN	0.1	T	T	1				
4	EUP	3.2	1.60E-02	.232	32				
4	GIPU	0.1	T	T	1				
4	LARE	2.5	1.25E-02	.181	12				
4	LEDE	0.8	T	5.80E-02	8				
4	MATA	1.1	T	7.98E-02	7				
4	PLPA	0.3	T	2.18E-02	3				
	TOTAL		8.3	100.00		996.120			478.306

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARFR	14.98
ARSP	18.82
OPPO	29.23
Shrub Prod.	63.03
Total	541.336

PRECIPITATION DATA
RAIN GUAGE NO. 13 WEST PASTUR EXCL JULY 8/71
OCT. 15 TO APR. 15 = 1.50
APR. 15 TO JULY 1 = 3.30
JULY 1 TO SEPT. 1 = 1.67
SEPT. 1 TO OCT. 15 = 3.02
SEASON TOTAL = 9.49
LONG TERM AVERAGE = 5.82

**No utilization

2006 WEST PASTUR EXCL JULY 8/71 OUTSID NATIVE

NUMBER OF PLOTS
COVER = 200, PRODUCTION = 20
PLOT SIZE 1 FT. X 10 FT.

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 200	TOTAL WGT. GMS/ 200 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS** PER AC.
6	*OPPO	205.5	1.03		45				
1	ARPE	3.0	1.50E-02	.188	1	2.01	2.01	0.67	.96514
1	ARSP	402.0	2.01	25.2	82	168.07	2.05	0.42	80.702
1	ATNU	733.2	3.67	46.0	100	410.71	4.11	0.56	197.21
	PER GRASS	444.0	2.22		98	204.00	2.08	0.46	97.955
3	BOGR	12.0	6.00E-02	.753	2	11.85	5.92	0.99	5.6900
3	ORHY	48.1	.240	3.02	22	41.39	1.88	0.86	19.874
3	POSE	206.3	1.03	12.9	98	54.90	0.56	0.27	26.361
3	SIHY	24.8	.124	1.56	22	31.22	1.42	1.26	14.991
3	SPCR	152.8	.764	9.59	98	64.64	0.66	0.42	31.038
	PER FORBS	4.80	0.02		27	9.20	0.34	1.92	4.42
2	ALTE	2.7	1.35E-02	.169	27				
2	MUDI	2.1	1.05E-02	.132	9				
	ANN FORBS	7.00	0.03		34	2.82	0.08	0.40	1.35
4	AST	0.2	T	1.25E-02	2				
4	EUP	3.4	1.70E-02	.213	34				
4	GIPU	0.2	T	1.25E-02	2				
4	LARE	0.4	T	2.51E-02	4				
4	MATA	1.8	T	.113	18				
4	PLPA	1.0	T	6.27E-02	10				
	TOTAL		9.0	100.00		796.810			382.604

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARFR	173.95
ARSP	6.67
OPPO	14.30
Shrub Prod.	194.92
Total	577.52

PRECIPITATION DATA
RAIN GUAGE NO. 13 WEST PASTUR EXCL JULY 8/71
OCT. 15 TO APR. 15 = 1.50
APR. 15 TO JULY 1 = 3.30
JULY 1 TO SEPT. 1 = 1.67
SEPT. 1 TO OCT. 15 = 3.02
SEASON TOTAL = 9.49
LONG TERM AVERAGE = 5.82

**Production adjusted for utilization

	464.32
	194.92
Total Adjusted	659.24